ClientPOS

# PT6000

## User Manual

**Version: 2.0**

**P/N :**

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# Safety Instructions

1. Read these instructions carefully. Keep these instructions for future reference.
2. Please disconnect this equipment from AC outlet before cleaning. Don't use liquid or sprayed detergent for cleaning. Use moisture sheet or cloth for cleaning.
3. Please keep this equipment from humidity.
4. Lay this equipment on a reliable surface when install. A drop or fall could cause injury.
5. Make sure power cord such a way that people can not step on it. Do not place anything over the power cord.
6. All cautions and warnings on the equipment should be noted.
7. If the equipment is not used for long time, disconnect the equipment from main to avoid being damaged by transient over voltage.
8. Never pour any liquid into opening, this could cause fire or electrical shock.
9. If one of the following situations arises, get the equipment checked by a service personnel:
   a. The power cord or plug is damaged.
   b. Liquid has penetrated into the equipment.
   c. The equipment has been exposed to moisture.
   d. The equipment does not work well or you can not get it work according to **user manual.**
   e. The equipment has dropped and damaged.
10. Do not leave this equipment in an environment unconditioned, storage temperature below -20°C or above 60°C, it may damage the equipment.
11. Unplug the power cord when doing any service or adding optional kits.

**Lithium Battery Caution:**

1. Danger of explosion can happen if the battery is incorrectly replaced. Replace only the original or equivalent type recommended by the manufacture. Dispose used batteries according to the manufacture's instructions.

Do not remove the cover, and ensure no user serviceable components are inside. Take the unit to the service center for service and repair.

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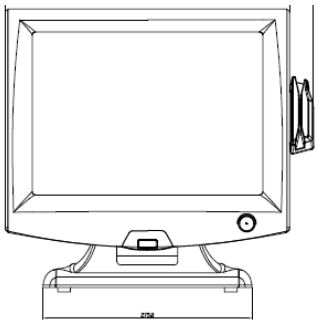
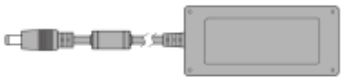
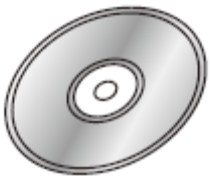
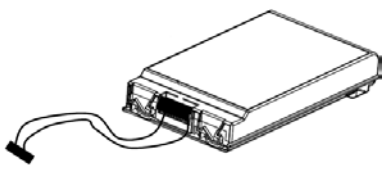
# 1 Packing List

## 1-1 Standard Accessories

| | | |
|---|---|---|
| a.  | b.  | c. |
| d.  | e. | f. |

a. System (with stand)
b. Power Adapter
c. Power Cord
d. Driver Bank
e. Screw x2
f. Cable Cover

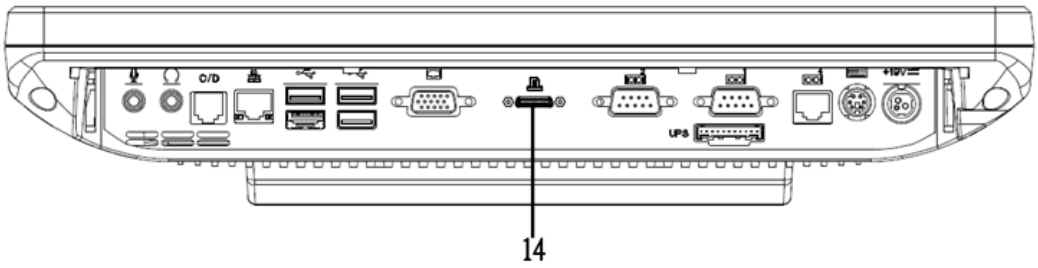
## 1-2 Optional Accessories

| | |
|---|---|
| a. | b. |
| c.  | d. |

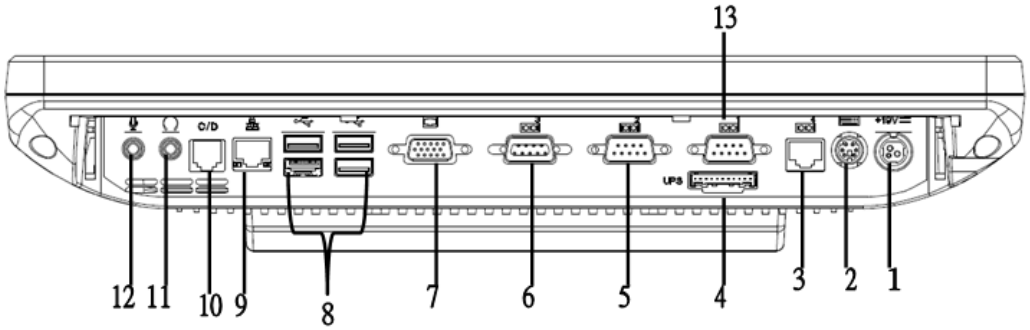
a. Single MSR
b. 3 IN 1 MSR
c. UPS Battery
d. Screw x2

# 2 System View

## 2-1 Rear View with Optional LPT Port

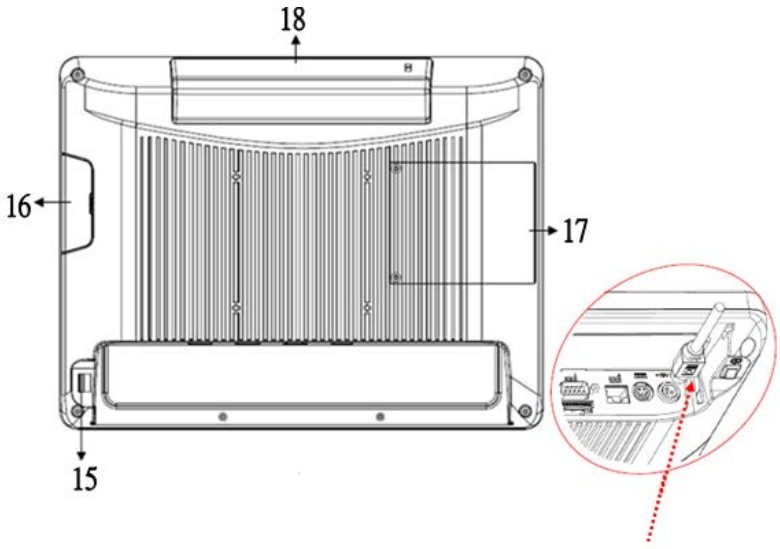



**Rear View Standard**




**Item**

1. 19V DC Input
2. PS2(K/B)
3. RJ45(COM 4 for External VFD)
4. UPS Battery(Option)
5. COM2
6. COM3
7. VGA
8. USB 2.0/1.1 X4
9. RJ45(LAN)
10. RJ11(Cash Drawer)
11. Line-Out
12. Mic
13. COM1
14. Parallel port(Option :Alterative to COM 3)
15. Power Button
16. MSR/Smart Card /i-Button /Fingerprint /RFID (Option)
17. HDD/CF CARD
18. VFD(Option)



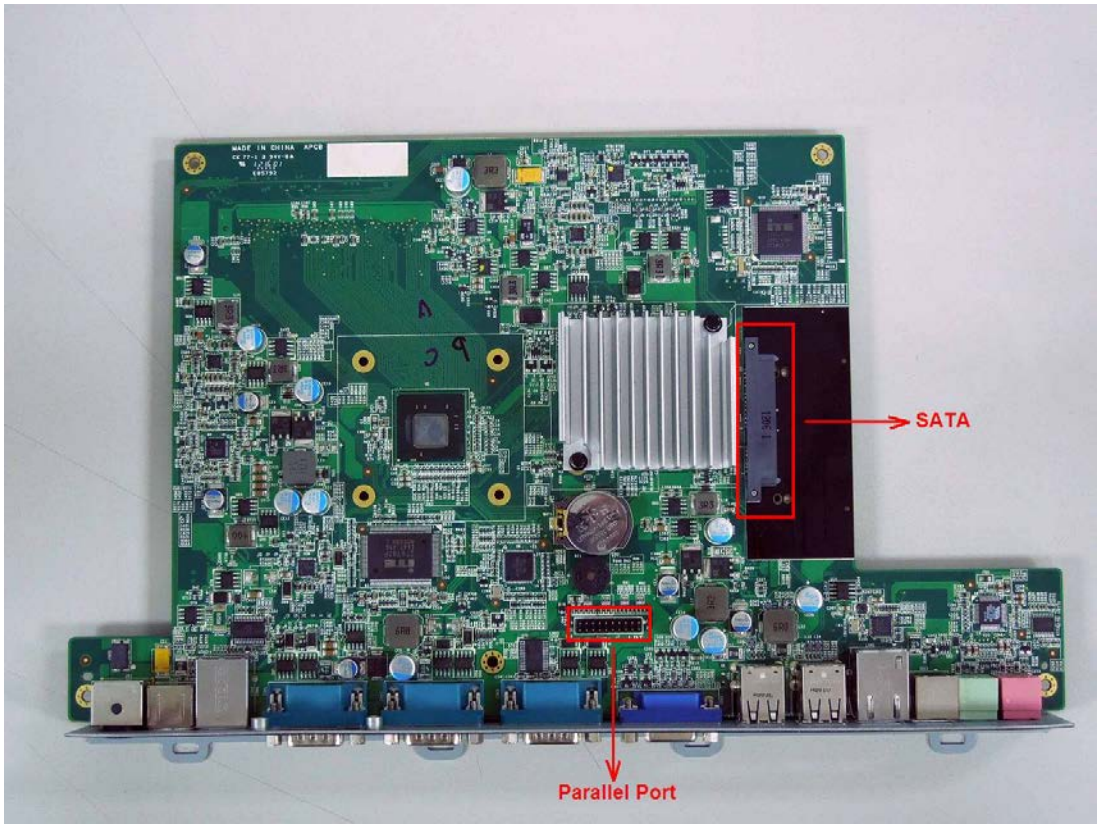

☆ **Please make sure 19V DC plug in the right direction before plugging in DC jack.**

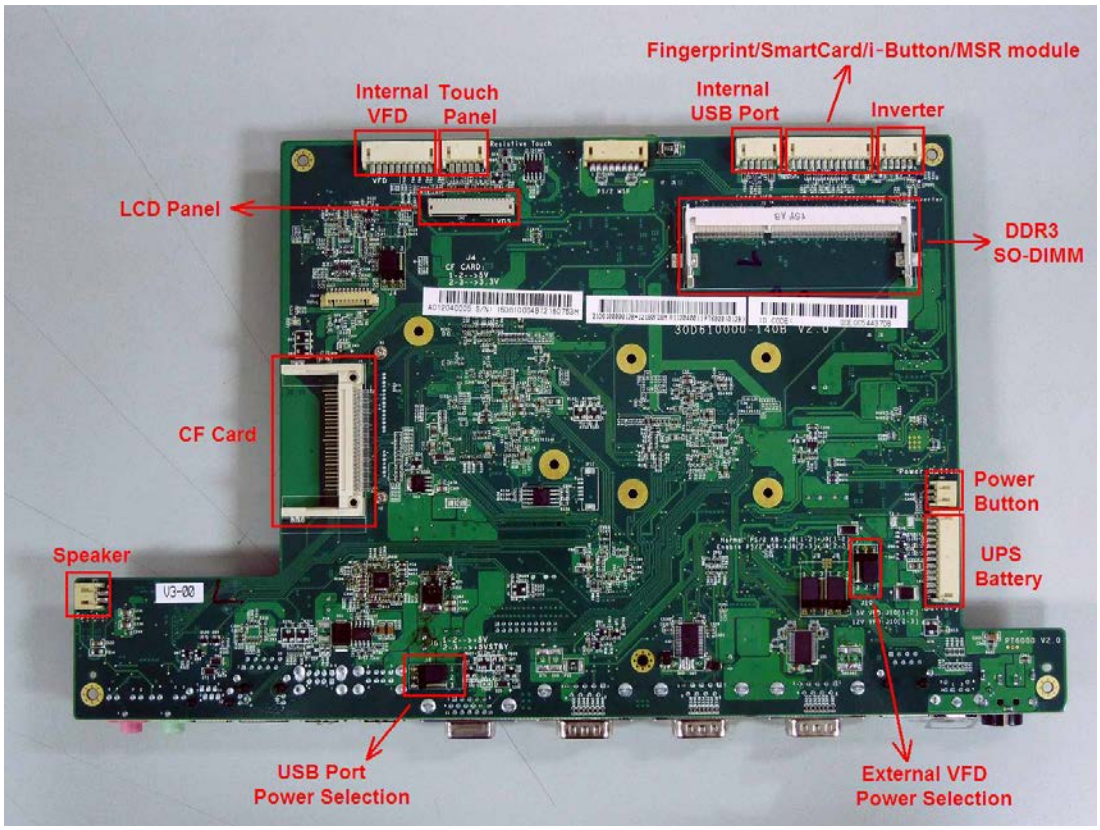
## 2-2 Specification

| | |
|---|---|
| **Processor** | Intel® Atom™ processor D525 (1M Cache, 1.80GHz) |
| **Chipsets: North Bridge/South Bridge** | ICH8-M |
| **Memory** | One SO-DIMM socket supports DDR3 800 up to 4GB |
| **Audio** | Line-out/Mic-in |
| **Network** | RJ45 10/100/1000 Base-T |
| **USB** | 4*USB 2.0 |
| **Storage** | CF card / 2.5” SATA HDD / SSD |
| **BIOS** | Award PnP BIOS |
| **Power** | DC 19V 90W Adaptor |
| **Thermal Solution** | Fan-less |
| **Dimension** | 368 (W) x 264.2 (H) x 285 (D) mm |
| **Operating Temperature** | 0°C ~ 35°C |
| **Storage Temperature** | -20°C ~ 60°C |
| **Storage Humidity** | 20% ~ 80%, non-condensing |

| **Display** | |
|---|---|
| **LCD Panel Size** | 15-inch TFT Active Matrix Display |
| **Resolution** | 1024*768 Pixels |
| **Brightness** | 250 cd/m2 |
| **Touch Panel** | 5-wire Resistive Type / Projected Capacitive Type |

## 2-3 Internal Layout



# 3 Pin Definition

## 1. COM 5 for Touch Panel (CN 16)

| Pin NO. | Function | Pin | Function | Pin | Function |
|---|---|---|---|---|---|
| 1 | T_UR | 3 | T_SG | 5 | T_LR |
| 2 | T_UL | 4 | T_LL | | |

## 2. Parallel J7

| Pin | Pin Name | Description |
|---|---|---|
| 1 | STB# | Printer Strobe |
| 2 | PD0 | Parallel Port DATA0 |
| 3 | PD1 | Parallel Port DATA1 |
| 4 | PD2 | Parallel Port DATA2 |
| 5 | PD3 | Parallel Port DATA3 |
| 6 | PD4 | Parallel Port DATA4 |
| 7 | PD5 | Parallel Port DATA5 |
| 8 | PD6 | Parallel Port DATA6 |
| 9 | PD7 | Parallel Port DATA7 |
| 10 | ACK# | Printer Acknowledge |
| 11 | BUSY | Printer Busy |
| 12 | PE | Printer Paper End |
| 13 | SLCT | Printer Select |

| Pin NO. | Pin Name | Description |
|---|---|---|
| 14 | AFD# | Printer Auto Line Feed |
| 15 | ERR# | Printer Error |
| 16 | INIT# | Printer Initialize |
| 17 | SLIN# | Printer Select Input |
| 18 | GND | Ground |
| 19 | GND | Ground |
| 20 | GND | Ground |

## 3. Lin-out J3

| Pin | Pin Name | Description |
|---|---|---|
| 1 | GND | Ground |
| 2 | GND | Ground |
| 3 | Line OUT R | Line out |
| 4 | Line OUT L | Line out |
| 5 | Detect | Detect |

## 4. VFD Connector CN9

| Pin | Pin Name | Description |
|---|---|---|
| 1 | 5V | +5V |
| 2 | NDSR | DSR |
| 3 | GND | Ground |
| 4 | NDTR | DTR |
| 5 | NRTS | RTS |
| 6 | NCTS | CTS |
| 7 | NTXD | TXD |
| 8 | NRXD | RXD |
| 9 | GND | Ground |
| 10 | 12C | +12V |

**5. Mic**

| Pin | Pin Name | Description |
|---|---|---|
| 1 | GND | Ground |
| 2 | GND | Ground |
| 3 | Mic R | Mic |
| 4 | Mic L | Mic |
| 5 | Detect | Detect |

**6. Speaker SP1**

| Pin | Pin Name | Description |
|---|---|---|
| 1 | + | Speaker + |
| 2 | - | Speaker - |

**7. LVDS CN 2**

| Pin | Pin Name | Description |
|---|---|---|
| 1 | LCDVCC | +3.3v |
| 2 | LCDVCC | +3.3v |
| 3 | GND | Ground |
| 4 | NC | NC |
| 5 | DATA 0- | LVDS Output DATA0- |
| 6 | DATA 0+ | LVDS Output DATA0+ |
| 7 | GND | Ground |
| 8 | DATA 1- | LVDS Output DATA1- |
| 9 | DATA 1+ | LVDS Output DATA1+ |
| 10 | GND | Ground |
| 11 | DATA 2- | LVDS Output DATA2- |
| 12 | DATA 2+ | LVDS Output DATA2+ |
| 13 | GND | Ground |
| 14 | CLK- | LVDS CLK- |

| Pin NO. | Pin Name | Description |
|---|---|---|
| 15 | CLK+ | LVDS CLK+ |
| 16 | GND | Ground |
| 17 | NC | NC |
| 18 | NC | NC |
| 19 | GND | Ground |
| 20 | NC | NC |

**8. Inverter CN14**

| Pin NO. | Pin Name | Description |
|---|---|---|
| 1 | VCC | +12V |
| 2 | GND | Ground |
| 3 | NC | NC |
| 4 | BKL_CTL | Back Light Brightness |
| 5 | BKL_EN | Back Light Enable |

**9. Extra USB CN13**

| Pin NO. | Pin Name | Description |
|---|---|---|
| 1 | VCC | +5V |
| 2 | - DATA | D- |
| 3 | + DATA | D+ |
| 4 | GND | Ground |
| 5 | GND | Ground |

# 4 Rear I/O Interface

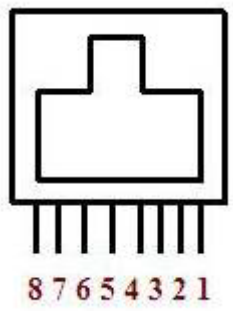
## 1. COM1' COM2' COM3 port

| Pin | Signal | Function | Pin | Signal | Function |
|---|---|---|---|---|---|
| 1 | CD | Carrier Detect (IN) | 6 | DSR | Data Set Ready (In) |
| 2 | RD | Receive Data (IN) | 7 | RTS | Request To Send (OUT) |
| 3 | TD | Transmit Data(OUT) | 8 | CTS | Clear To Send (IN) |
| 4 | DTR | Data Terminal Ready(OUT) | 9 | Ring/5V/12V | Setting by BIOS |
| 5 | GND | Ground | | | |

**NOTICE:**

☆ **COM 4 port. Warning!! COM4 (RJ45 Connector) for external VFD use only. Never use on network device. If you are using on the network device will cause the device damaged.**

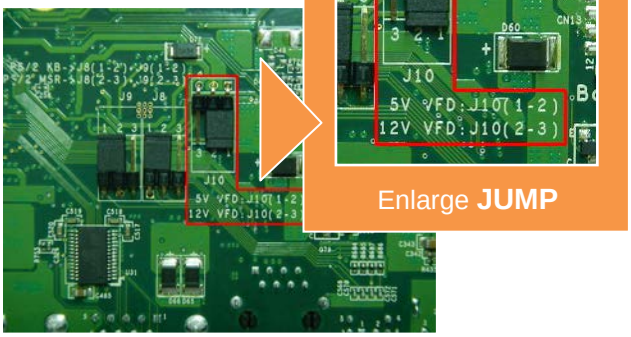
☆☆ **COM 4 port will be inactive if POS has internal VFD. (Alternative of COM 4 or internal VFD)**




Pin 1: +5V/ +12V
Pin 2: DSR#
Pin 3: GND
Pin 4: DTR#
Pin 5: RTS#
Pin 6: CTS#
Pin 7: TxD
Pin 8: RxD

**Jumper for COM4**

**Voltage Setting**




## 2. VGA port

| Pin | I/O | Function | Pin | I/O | Function |
|---|---|---|---|---|---|
| 1 | Out | Red Video | 9 | - | Key (Plugged Hole) |
| 2 | Out | Green Video | 10 | - | Sync Ground |
| 3 | Out | Blue Video | 11 | In | Monitor ID 0 |
| 4 | In | Monitor ID 2 | 12 | In | Monitor ID 1 |
| 5 | - | TTL Ground (Monitor Self Test) | 13 | Out | Horizontal Sync |
| 6 | - | Red Analogue Ground | 14 | Out | Vertical Sync |
| 7 | - | Green Analogue Ground | 15 | In | Monitor ID 3 |
| 8 | - | Blue Analogue Ground | | | |

### 3. USB port

| Pin | Signal Name | Wire Colour | Comment |
|---|---|---|---|
| 1 | VCC | Red | Cable Power |
| 2 | - Data | White | Data Transfer |
| 3 | + Data | Green | Data Transfer |
| 4 | Ground | Black | Cable Ground |
| Shell | Shield | - | Drain Wire |

### 4. PS/2 K/B port

| Pin | Signal Name |
|---|---|
| 1 | Data from Device |
| 2 | Not Connected |
| 3 | Ground |
| 4 | +5V DC |
| 5 | Clock |
| 6 | Not Connected |

### 5. LAN port

| Pin | Wire Colour | Description |
|---|---|---|
| 1 | White / Orange | Transmit |
| 2 | Orange | Transmit |
| 3 | White / Green | Receive |
| 4 | Blue | Not Used ⊗ |
| 5 | White / Blue | Not Used ⊗ |
| 6 | Green | Receive |
| 7 | White / Brown | Not Used ⊗ |
| 8 | Brown | Not Used ⊗ |

### 6. RJ11 port (for Cash drawer)

| Pin | Signal Name | Direction |
|---|---|---|
| 1 | Frame GND | - |
| 2 | Drawer Kick-out drive signal 1 | Output |
| 3 | **N/C** | **-** |
| 4 | +12V | - |
| 5 | **N/C** | **-** |
| 6 | Signal GND | - |

Example DOS COMMAND for **Cash Drawer**:

1. Create **the file**: TEST.TXT
2. Input below **contents** in TEST.TXT

   **CONTEXT-"000.0"**

   **MODE COM6:300**
3. Run COMMAND under DOS mode

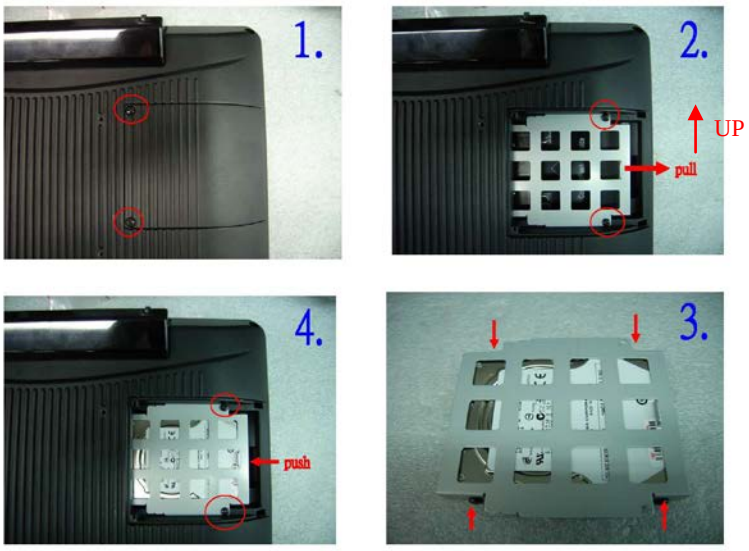
   **COPY TEST.TXT COM6**

### 7. DC Jack

| Pin | Signal Name |
|---|---|
| 1 | DC IN 19V |
| 2 | Ground |

# 5 System Assembly & Disassembly

## 5-1 HDD




1. Unfasten the HDD cover screw*2
2. Pull out the HDD bracket
3. Fasten the screw*4
4. Place the HDD bracket back to the module

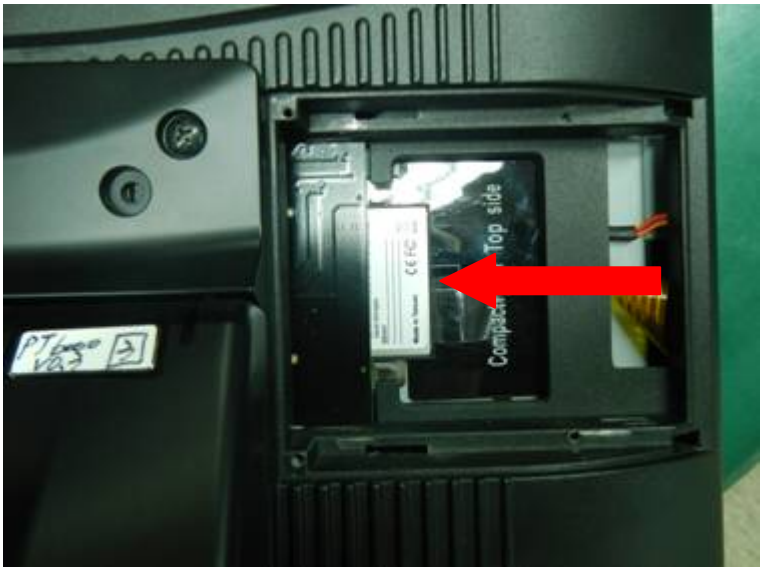
## 5-2 CF Card

1. Please notice the notched CF Card. This side up.

CAUTION!
Please read following instruction carefully before using our product.
• Please follow the direction indicated on the front label while inserting this card.
• Keep this device away from heat, moisture and direct sunlight.
• Avoid exerting force or shock on this device.
• Do not unfold the cover or frame kit, that would cause damages.
MEMO
Made in Taiwan

2. Before Installing CF Card.

3. After Installing CF Card.

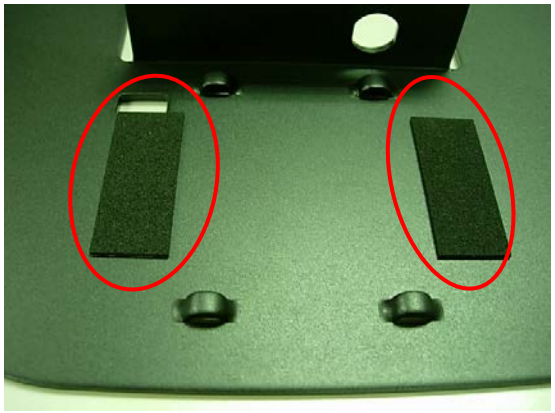


## 5-3 MSR

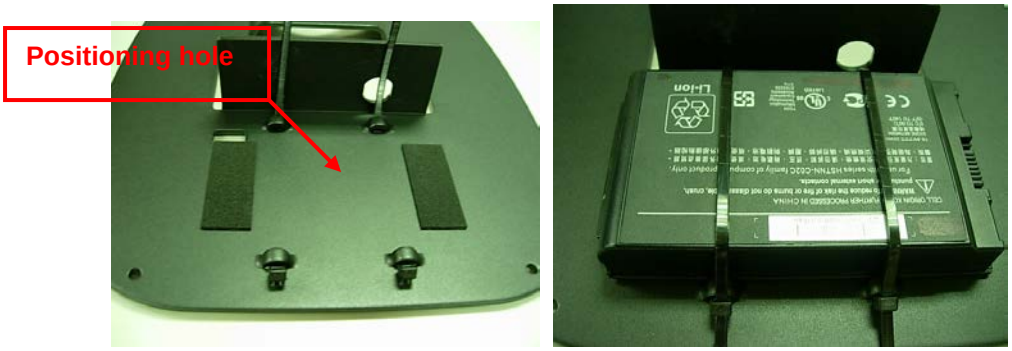
1. Open the MSR cover
2. Single MSR or 3-in-1 MSR
3. Screw*2 M3x10L
4. Fasten the screw

## 5-4 UPS Battery

1. Paste two rubbers on the located position of the Stand Bracket.



2. Reeve two cable ties through the stand bracket. Place the battery pack in position and bind the cable ties tightly. Then cut the extra tail from cable ties.




3. Reeve the cable from the battery pack through the stand bracket and click the cable lock.

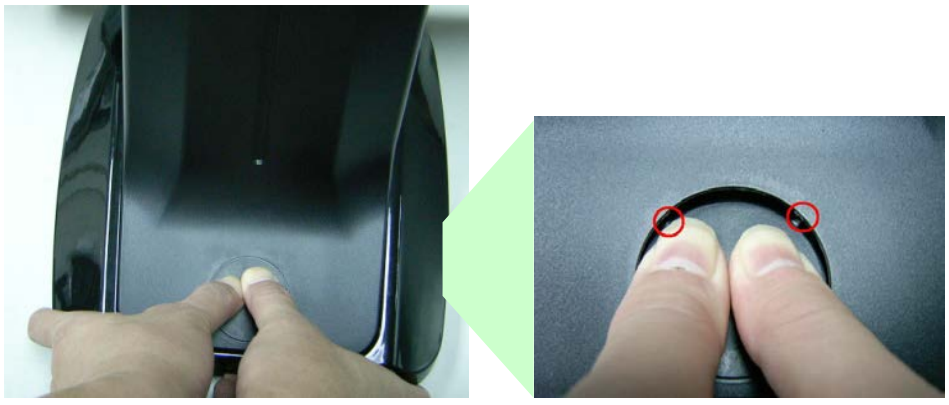
## 5-5 cable cover

Assemble the cable cover from bottom and make sure the two latches are on the right position. Then fasten 2 screws (M3*5L).

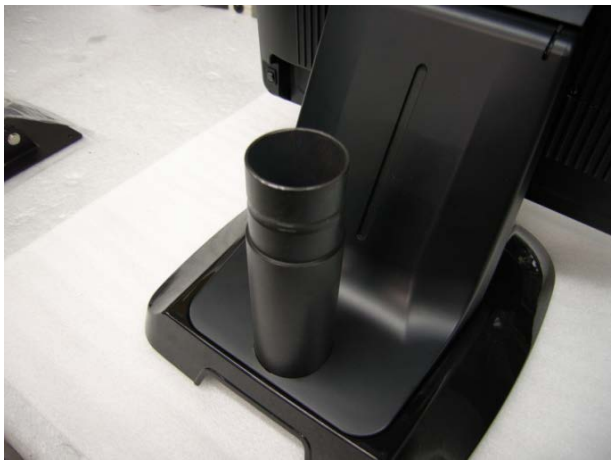
## 5-6 15” 2nd Display

☆ **Power supply must be replaced to 120W above power adapter.**

1. Remove the plastic pole cover from the stand.



2. Install the pole into the socket in clockwise direction.



3. Fasten the four screws (M4*8L) to joint the VESA bracket and the rear cover.

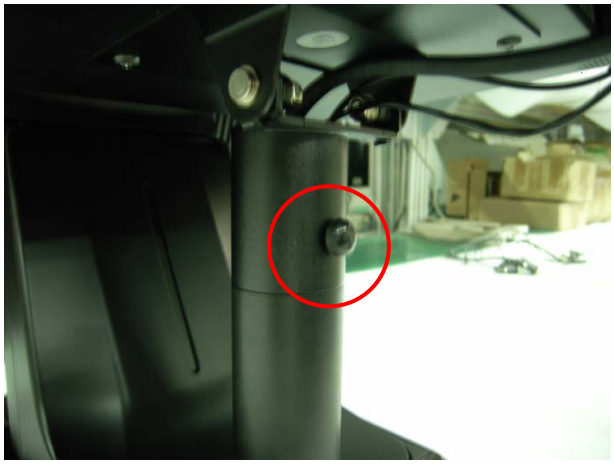
4. Connect the COM port, DC cable as shown in figure ①. (Please refer to page 74 to set the COM port pin9 with 12V DC output.)
5. Connect the VGA cable as shown in figure ②.
6. Connect the audio cable as shown in figure③.

7. Assemble the cable cover from bottom and make sure the two latches are on the right position, and fasten the two screws (M3*5L).

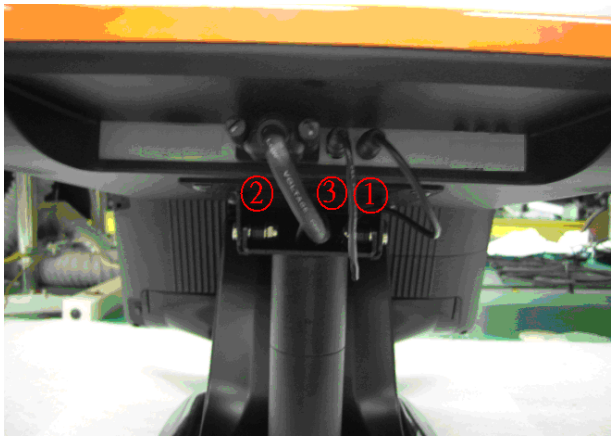
8. Route the cables through the opening of stand front cover and cable clip at the bottom and route the cables into the tube of pole.

9. Reeve the cables out of the tube.

10. Mount the VESA bracket on the pole and route cables out of the tube of VESA bracket. Fasten the thumb screw to fix the VESA bracket.



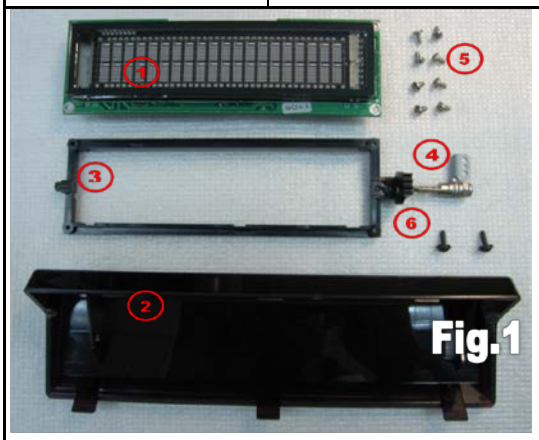
11. Connect the DC power cable as shown in figure①.
12. Connect the VGA cable as shown in figure②.
13. Connect the Audio cable as shown in figure③.

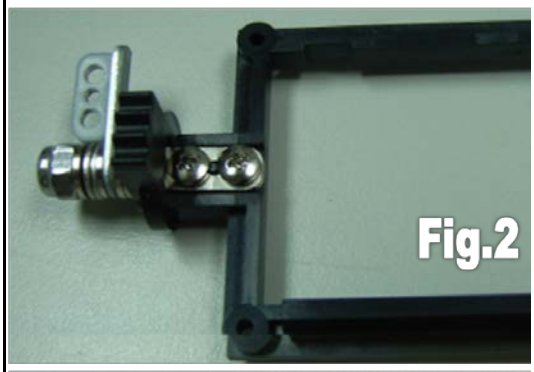


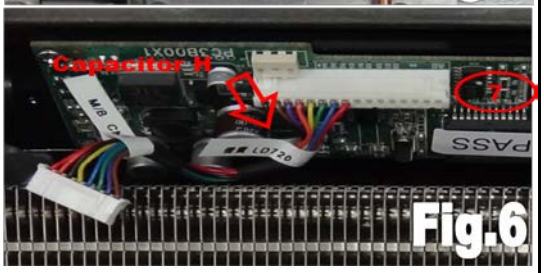

14. Put the cable cover on the hinge of VESA bracket.

## 5-7 Internal VFD

| ClientPOS | ClientPOS electronics Inc. | Model | PT6000 | Assembling Figure |
|---|---|---|---|---|



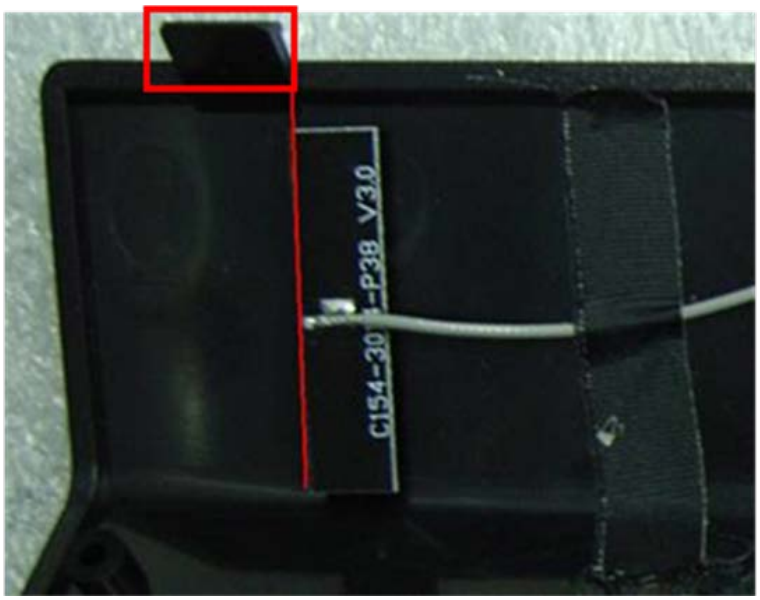



| Operation | VFD MODULE assemblely | |
|---|---|---|
| **Item** | **Operation procedure** | **Remark** |
| 1 | Prepare all components as Fig 1 | |
| 2 | Assemble HOLDER & HINGE ASSY by TAPPING SCREW P/H 2.6φ*5 x2 pcs(As Fig 2) | Torque 2Kgf |
| 3 | Fix VFD MODULE on holder assy by TAPPING SCREW P/H 2.6φ*5 x4 pcs as Fig 3 | Torque 2Kgf |
| 4 | Screw DISPLAY MODULE on VFD cover by TAPPING SCREW P/H 2.6φ*5 x 2pcs AS fig 4) | Toqure 2Kgf |
| 5 | Fix VFD moduler on Rear cover by TAPPING SCREW R/H M3*8L x 2pcs (As Fig 5) | Torque 2Kgf |
| 6 | The VFD CABLE must be around to capacitor H below, so as not to interfere HINGE action | |
| | (As Fig 6) | |
| **Item** | **P/N and Component** | |
| 1 | 20D990002-000B DISPLAY MODULE VFD *1 | |
| 2 | 68D350235-000B COVER FOR VFD *1 | |
| 3 | 78D300021-000B HOLDER FOR VFD *1 | |
| 4 | 26D100005-000B HINGE ASSY FOR VFD *1 | |
| 5 | 64D426051-000T SCREW TAPPING P/H 2.6φ*5 *8 | |
| 6 | 64D430088-000T SCREW TAPPING R/H M3*8L *2 | |
| 7 | 35D510480-000B CABLE 16P femail TO 8P female*1 | |
| **Item** | **Action item** | |
| 1 | Wear cotton gloves, wrist strap and may not wear watches, rings, etc. | |
| 2 | Screws to lock in place and can not lost | |
| 3 | Electric screwdriver Torque to be regularly calibrated, | |

☆ **Alternative of external COM4 (RJ45 Connector) or Internal VFD.**

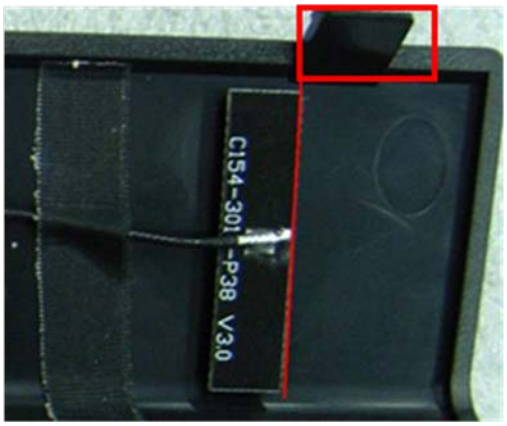
## 5-8 Wi-Fi

1. Fasten antenna (Part No.: 35D510530-000B) to the left side of VFD cover. Antenna is vertical to the right of the left snap(as the red frame) as shown in the figure below

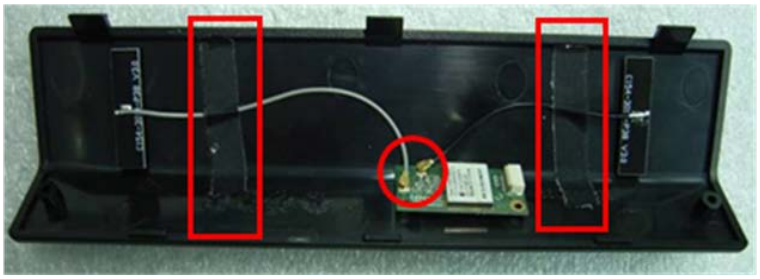



2. After fastening the Wi-Fi Module to the Rubber (Part No.: 78D200655-000T), fix this on the VFD cover. The left side of Wi-Fi module should align the interior cover as the position of the red line. The right side of Wi-Fi module should align another side as the red circle.

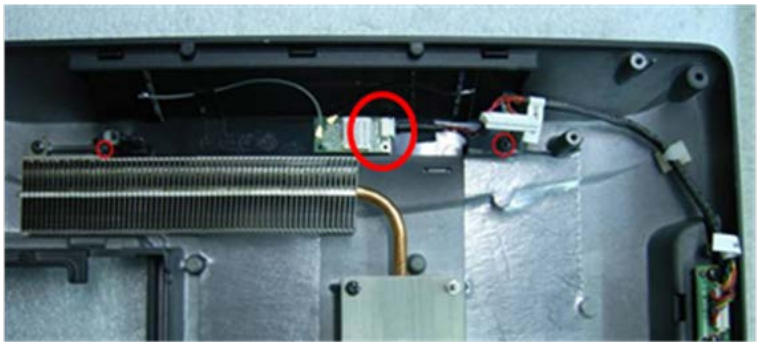
3. Fasten antenna (Part No.: 35D510530-000B) to the right side of VFD cover. Antenna is vertical to the left snap (as the red frame) as shown in the figure below.




4. Fasten antenna cable connector to Wi-Fi module terminal. Then fasten antenna cable to the cover by adhesive tapes



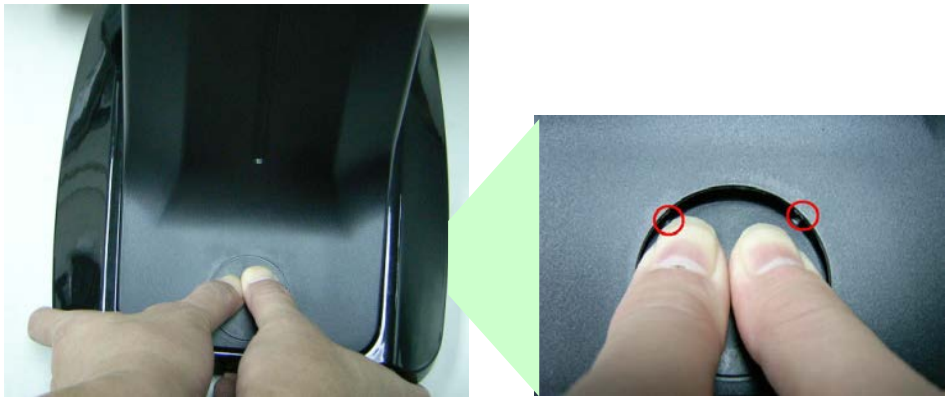
5. Fasten the VFD cover to the rear lid. Push the snap of the top VFD cover into the slot of rear lid and fasten the bottom cover with 2 screws (Part No.: 64D430088-000T). Then connect Wi-Fi /MSR cable (Part No.:35D510522-000B) to Wi-Fi module



☆ **Alternative of WiFi or Internal VFD.**

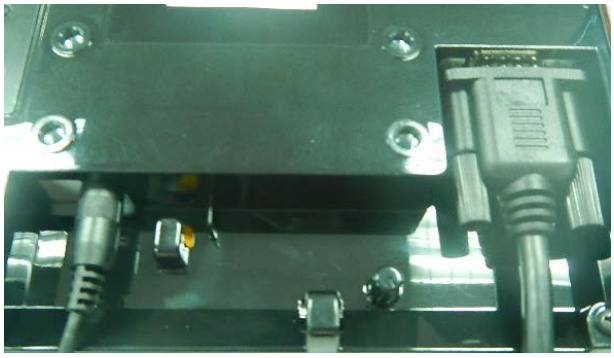
## 5-9 8” 2nd Display

1. Remove the plastic pole cover from the stand.

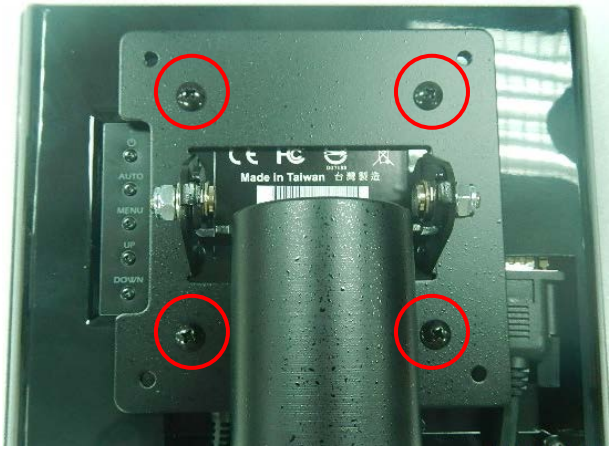


2. Install the pole into the socket in clockwise direction.

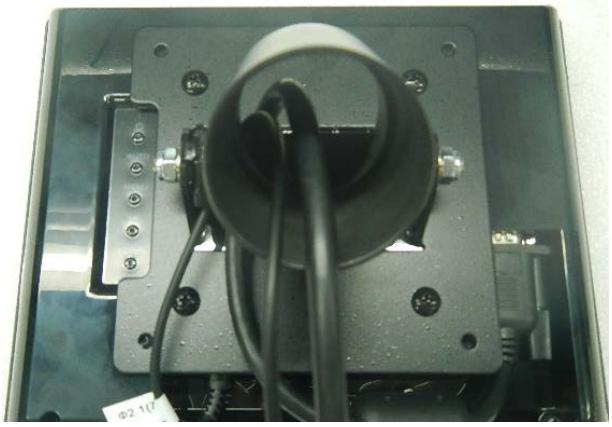
3. Connect VGA cable and DC power cable



4. Fasten the four screws (M4*8L) to joint the VESA bracket and the rear cover.




5. Reeve the cables out of the tube.



6. Mount the VESA bracket on the pole and route cables out of the tube of VESA bracket. Fasten the thumb screw to fix the VESA bracket.

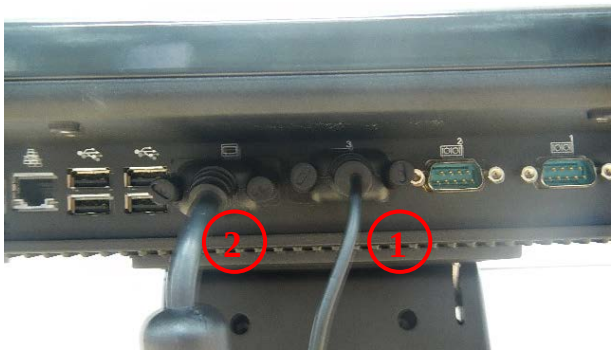
7. Reeve the cables out from the bottom of pole.

8. Route the cables through the opening of stand front cover and cable clip at the bottom and route the cables into the tube of pole.

9. Connect the DC power cable as shown in figure①.

☆ To setup COM port PIN9 with 12V DC output from BIOS setup, please refer to page 74, ***Advanced Chipset Features* / COM port PIN9 setting.**

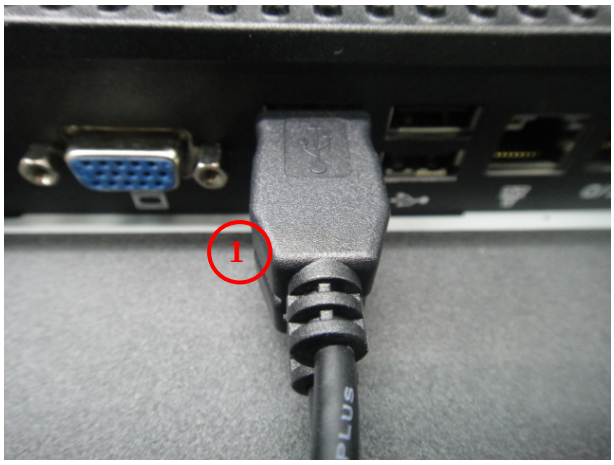
10. Connect the VGA cable as shown in figure②.




11. Put the cable cover on the hinge of VESA bracket.

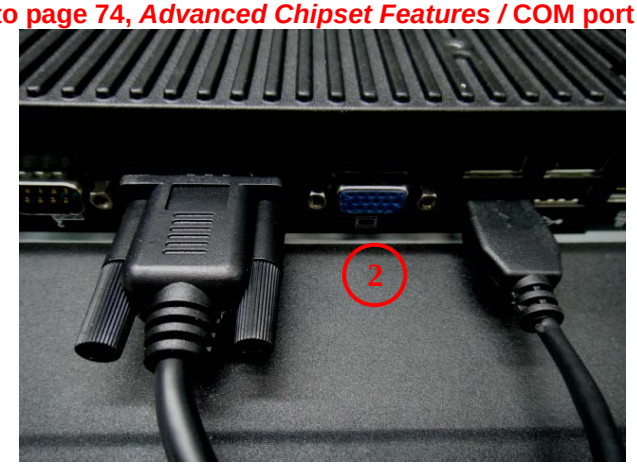
## 5-10 1D / 2D / i-Button with RFID module

1. Cable installation.
   a. For i-Button with RFID module; For 2D barcode scanner with RFID module:
      Connect the cable as shown in figure①.




   b. For 1D barcode scanner with RFID module:
      Connect the cable as shown in figure②.

☆ **Before COM port cable connection, please setup COM port PIN9 with 5V DC output from BIOS setup.**
**Please refer to page 74, *Advanced Chipset Features* / COM port PIN9 setting.**

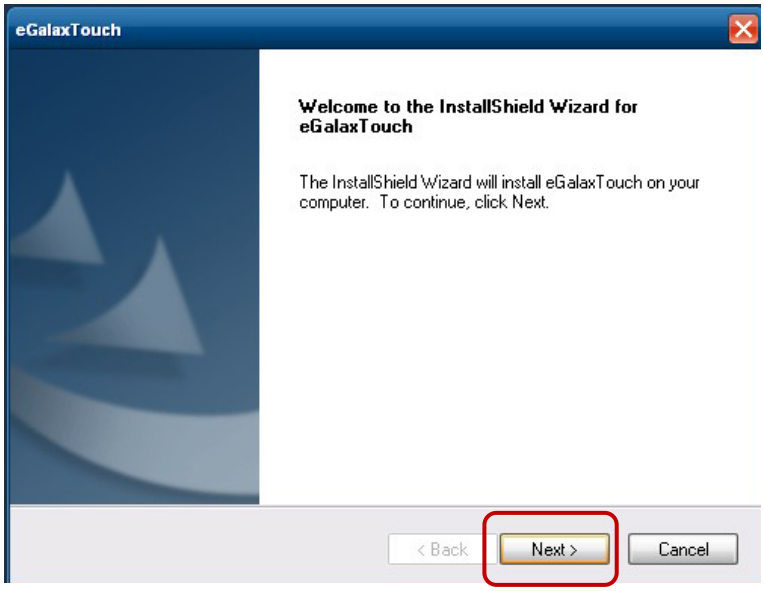



2. Fix the screws as shown in below figure.

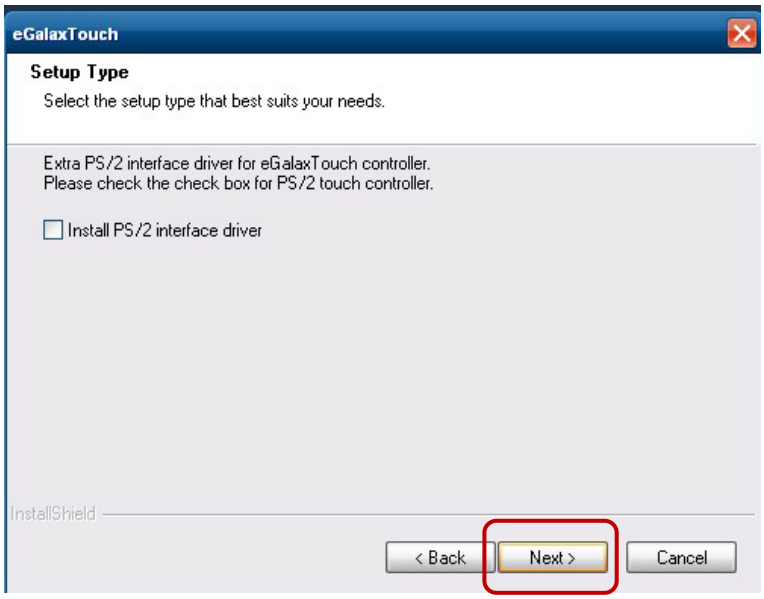
# 6 Device Driver Installation

## 6-1. Resistive Type Touch Panel and P-CAP

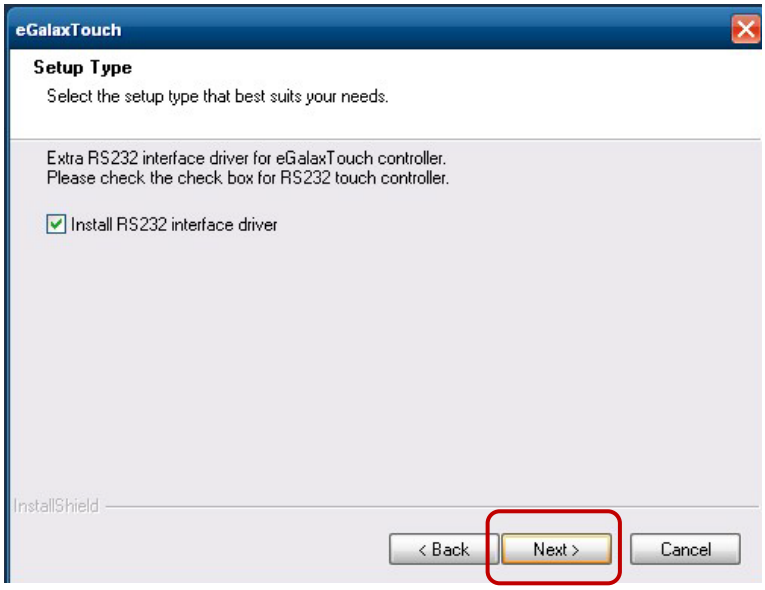
1. Click "**Next**".


eGalaxTouch
Welcome to the InstallShield Wizard for eGalaxTouch
The InstallShield Wizard will install eGalaxTouch on your computer. To continue, click Next.
< Back
Next >
Cancel

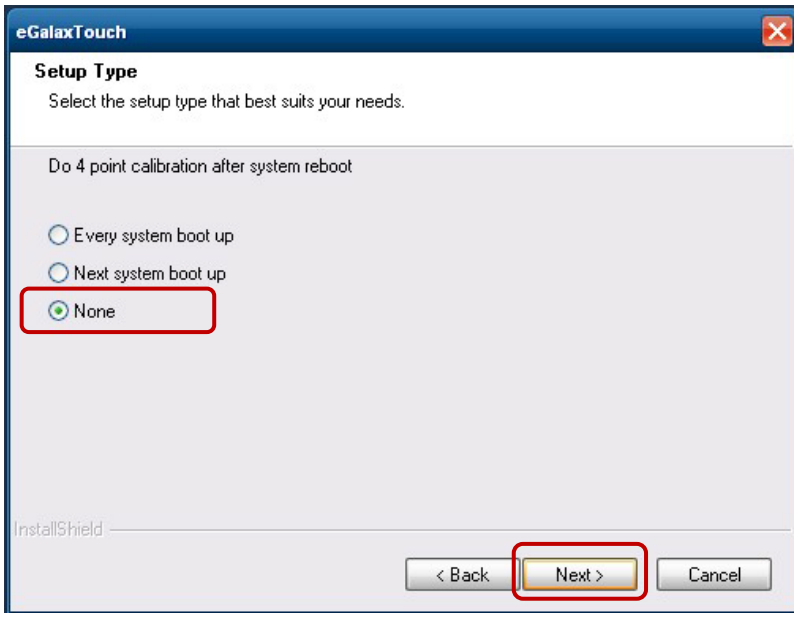
2. Click "**Next**".


eGalaxTouch
Setup Type
Select the setup type that best suits your needs.
Extra PS/2 interface driver for eGalaxTouch controller.
Please check the check box for PS/2 touch controller.
Install PS/2 interface driver
InstallShield
< Back
Next >
Cancel

3. Click “**Next**”.


eGalaxTouch
Setup Type
Select the setup type that best suits your needs.
Extra RS232 interface driver for eGalaxTouch controller.
Please check the check box for RS232 touch controller.
Install RS232 interface driver
InstallShield
< Back
Next >
Cancel

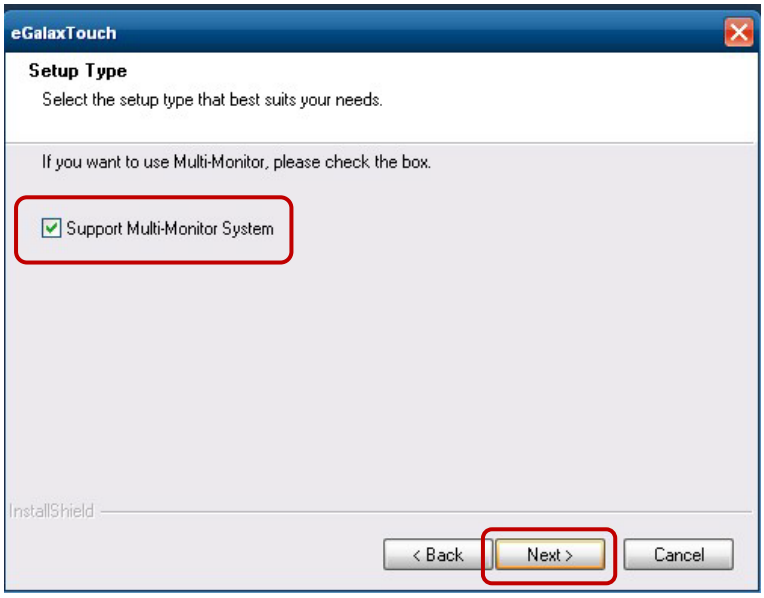
4. Select “**None**”, Click “**Next**”.



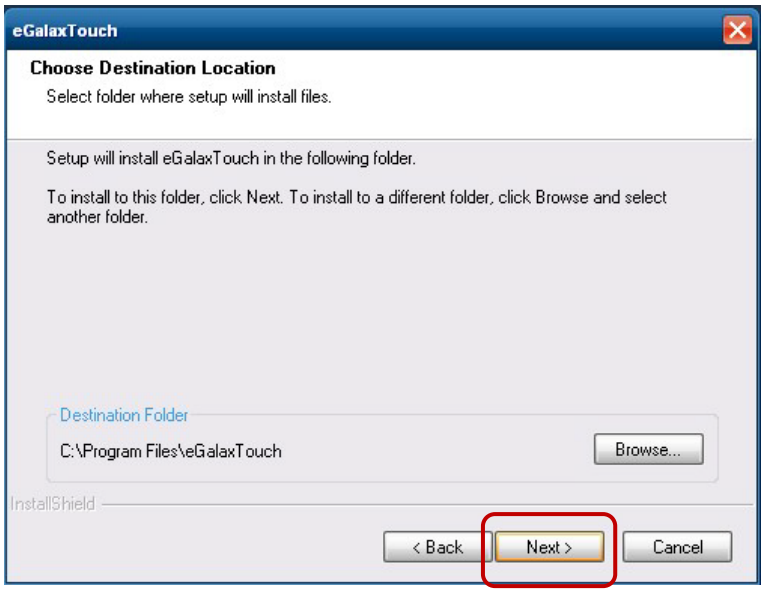

5 Click “**OK**”.

eGalaxTouch - InstallShield Wizard
If you are trying to install the USB touch device, please make sure that your touch monitor or touch controller's USB cable is plugged into the computer now.
Please close the "Found New Hardware Wizard" dialog when it appears.
OK

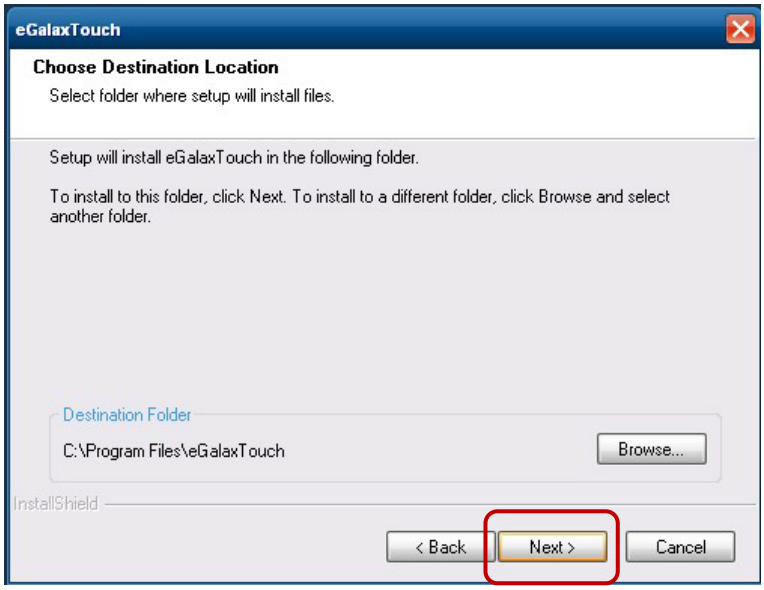
6. Select "**Support Multi-Monitor System**", Click "**Next**".



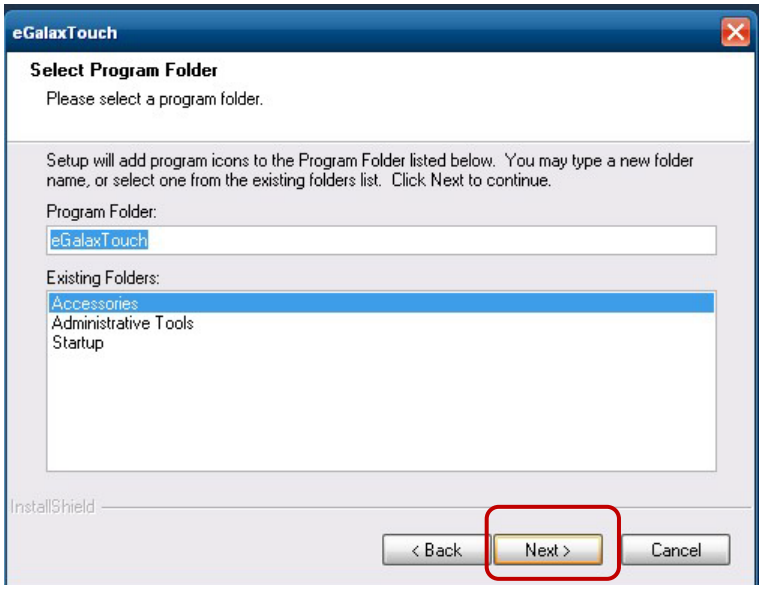

7. Click "**Next**".


eGalaxTouch
Choose Destination Location
Select folder where setup will install files.
Setup will install eGalaxTouch in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\eGalaxTouch
Browse...
InstallShield
< Back
Next >
Cancel

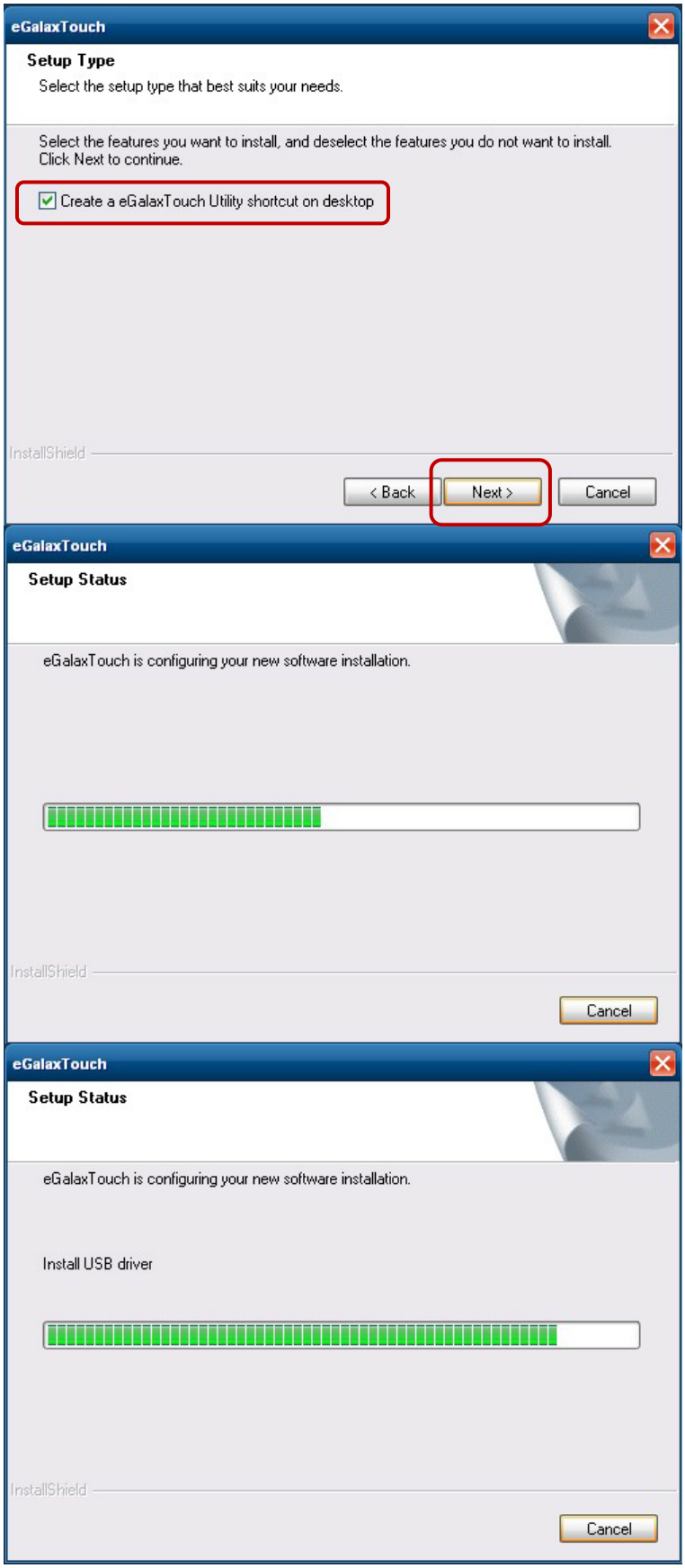
8. Click "**Next**".


eGalaxTouch
Choose Destination Location
Select folder where setup will install files.
Setup will install eGalaxTouch in the following folder.
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.
Destination Folder
C:\Program Files\eGalaxTouch
Browse...
InstallShield
< Back
Next >
Cancel

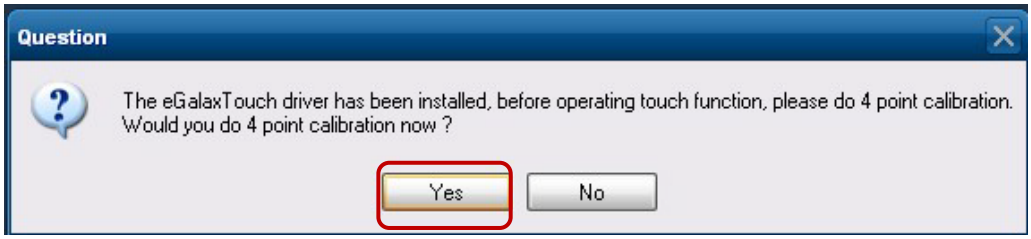
9. Click "**Next**".


eGalaxTouch
Select Program Folder
Please select a program folder.
Setup will add program icons to the Program Folder listed below. You may type a new folder name, or select one from the existing folders list. Click Next to continue.
Program Folder:
eGalaxTouch
Existing Folders:
Accessories
Administrative Tools
Startup
InstallShield
< Back
Next >
Cancel

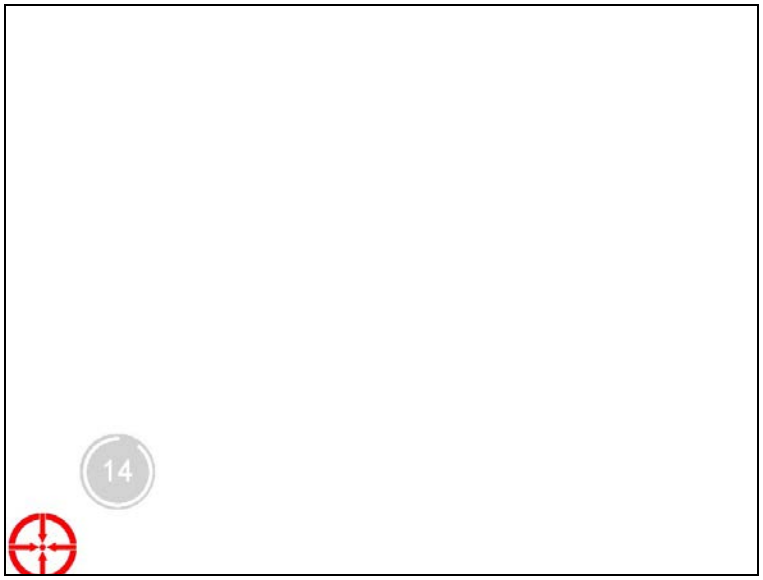
10. Select "**Create a eGalaxTouch Utility shortcut on desktop**", Click "**Next**".



11. Would you do 4 point calibration now? Click "**Yes**".


Question
The eGalaxTouch driver has been installed, before operating touch function, please do 4 point calibration.
Would you do 4 point calibration now ?
Yes
No

12. Do 4 points aligrment to match display.




13. Calibration utility.

## 6-2 MagStripe Card Reader Configuration Utility

The MagStripe Card Reader Configuration Utility is used to set up the output format of HID MSR

# Installation

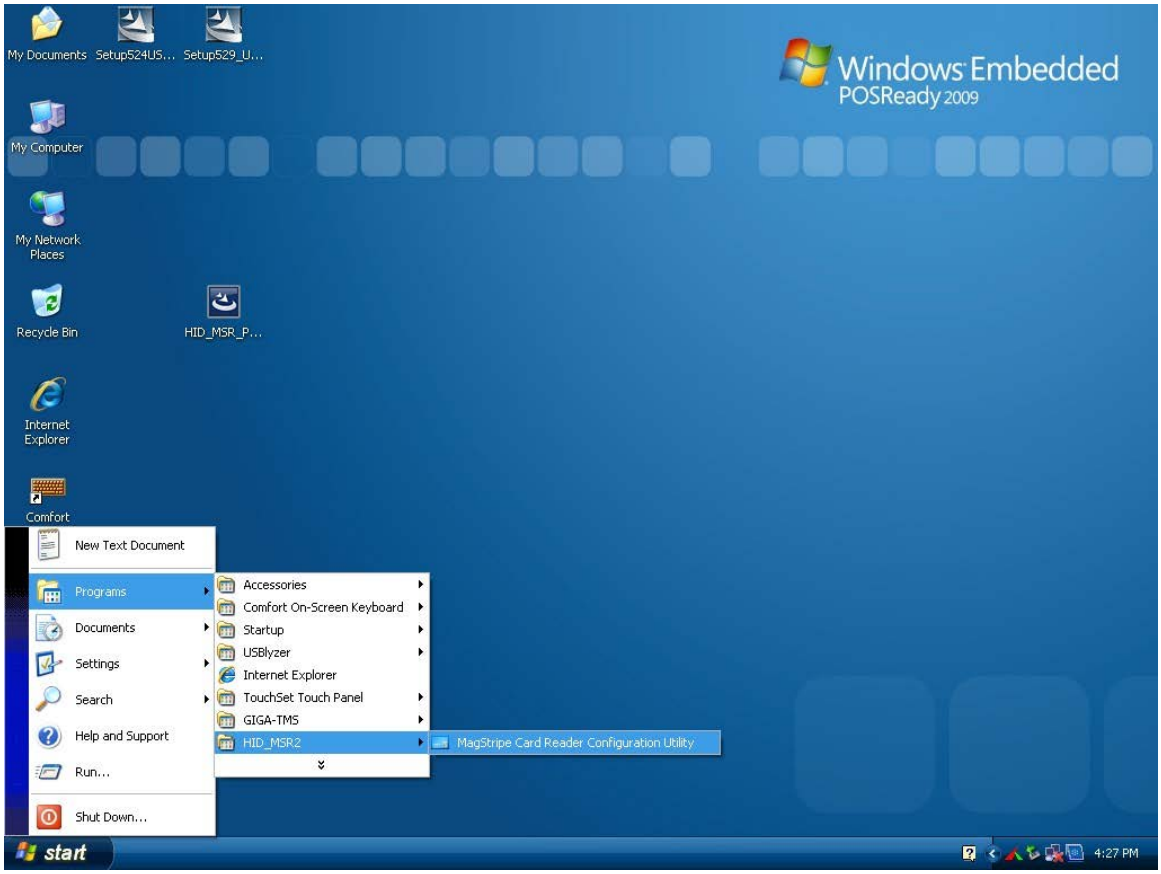
Below steps guide you how to install the Utility program

- Insert the setup CD
- Run the **HID_MSR_PSW00003_V2_0_0.exe** setup file that is located in the Software folder of CD.
- Follow the wizard to complete the installation.

# Launching Program

Below steps guide you how to load the **Utility** program.

- From **Start/Programs**, click **HID_MSR2** folder
- Click **MagStripe Card Reader Configuration Utility** to launch the program.

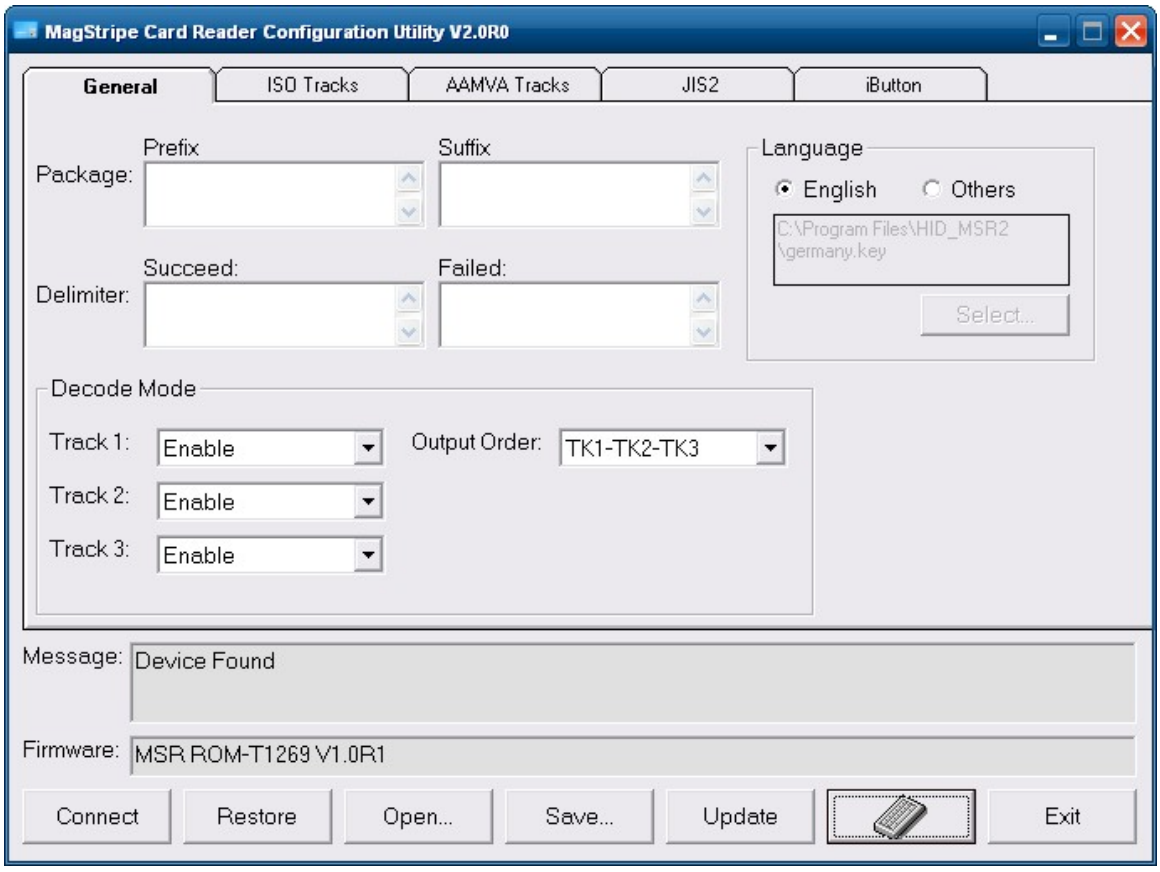



- The utility program will detect the connected reader. If detected, all the input text boxes will be enabled.
- If the reader has not been connected to PC yet, please connect the reader and then click **Refresh**

to get connected.

# Configuration

Below is the main window of **Utility** program.




For the settings, there are:

- **Language**: The language defines the code positions of the keyboard. Each language should use its own settings. Wrong language selected will cause the wrong character displayed.
- **Prefix/Suffix:** Defines the data string which you would like to append in front or end of the MSR data string.
- **Error Message:** Indicates which track number cause the error.
- **Delimiter**: Indicates the swipe result.
- **ISO:** Define start and end sentinel character.
- **Decode Mode:** Determines the way of outputting the three tracks data.

Shown below is the data structure of the output string for MSR.

PP PR1 SS1 **TK1** ES1 SU1 PR2 SS2 **TK2** ES2 SU2 PR3 SS3 **TK3** ES3 SU3 SU DM

- **PP:** Prefix for package.
- **PR1:** Prefix for track 1.
- **SS1:** Start sentinel for track 1.
- **TK1:** Data for track 1, if error happens, using Error Message instead.
- **ES1:** End sentinel for track 1.
- **SU1:** Suffix for track 1.
- **PR2:** Prefix for track 2.
- **SS2:** Start sentinel for track 2.
- **TK2:** Data for track 2, if error happens, using Error Message instead.
- **ES2:** End sentinel for track 2.
- **SU2:** Suffix for track 2.
- **PR3:** Prefix for track 3.
- **SS3:** Start sentinel for track 3.
- **TK3:** Data for track 3, if error happens, using Error Message instead..
- **ES3:** End sentinel for track 3.
- **SU3:** Suffix for track 3.
- **SU:** Suffix for package.
- **DM:** Delimiter for the swipe result.

# Prefix/Suffix

In default, the prefix and suffix settings are all keep blank. There are 4 kinds of prefix and suffix to be defined, which are:

- **Package:** For the prefix string, it is appended in the front of the whole MSR data. For the suffix, it is appended in the end of the whole MSR data. In most case, the suffix for package is always to be the “Enter” or “Tab” character. The max data length of the prefix and suffix for the package can be up to 127.
- **TK1:** For the prefix string, it is appended in the front of the start sentinel of track 2. For the suffix, it is appended in the end of the end sentinel of track 2. The max data length of the prefix and suffix for the TK1 can be up to 127.
- **TK2:** For the prefix string, it is appended in the front of the start sentinel of track 2. For the suffix, it is appended in the end of the end sentinel of track 2. The max data length of the prefix and suffix for the TK1 can be up to 127.
- **TK3:** For the prefix string, it is appended in the front of the start sentinel of track 3. For the suffix, it is appended in the end of the end sentinel of track 3. The max data length of the prefix and suffix for the TK1 can be up to 127.

# ISO

This group defines the start and end sentinel for each track. The sentinel is always used to extract the track data from the whole MSR data string. The data length for each sentinel is fixed to one character. Because there is ISO standard that defining the start and end sentinel for the three tracks. For the compatible reason, please do not modify the default value if possible.

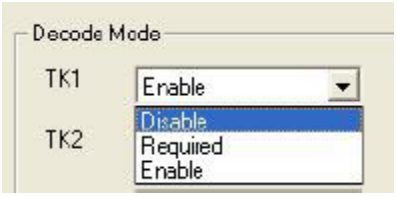
# Decode Mode

For this group, it contains two kinds of settings, which are:

- Track Data Filtering: Determine which track to be, not to be output or needed to be output.
- Switch Output Order: Change the output order of track 1 ~ 3.

# Track Data Filtering

Shown below is the filter setting for track 1. This provides a fool-proofing method in case of receiving unwanted or uncompleted track data.




These three filter settings are:

- **Enable:** If selected, the data of specified track will be packaged in the MSR data string. If the specified track data is not decoded, it will leave blank in the MSR data string.
- **Required:** If selected, which means the output MSR data string must contain the specified track data. If the specified track data is not decoded, even MSR data string contains other track data, it will still not to be output.
- **Disable:** If selected, the data of specified track will not be packaged in the MSR data string. No matter it is decoded or not.

# Switch Output Order

Show below is the selection of the three track data output order (sequence). The default order is Track 1–Track 2–Track 3.

There 6 orders allow to be selected. Please select one to fit your application needs.

# Update Settings

Once complete the settings, click **Update** to update the settings to connected HID MSR reader.

# Save Settings

To save the settings to a file, click **Save**; specify the file name and location to be saved.

# Open Settings

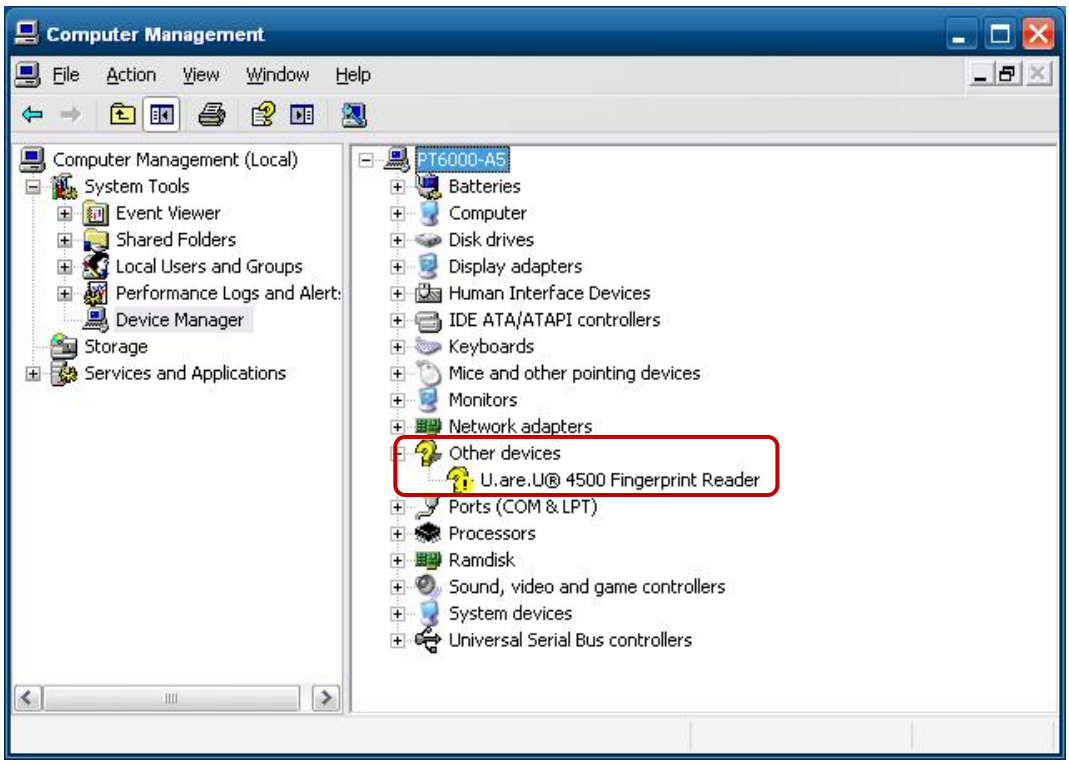
To load pre-saved settings, click **Open**, specify the settings file, and then click OK to load into program.

# Restore MSR Reader Settings

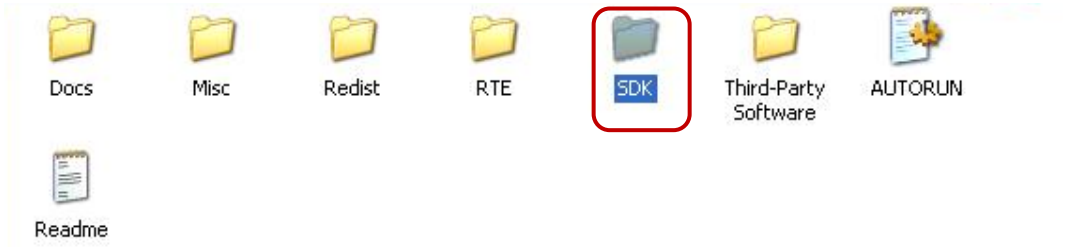
To load restore settings of connected MSR reader, click **Restore ES2:** End sentinel for track.

## 6-3 Fingerprint Reader

1. Check Fingerprint reader be detected by “Device manager “

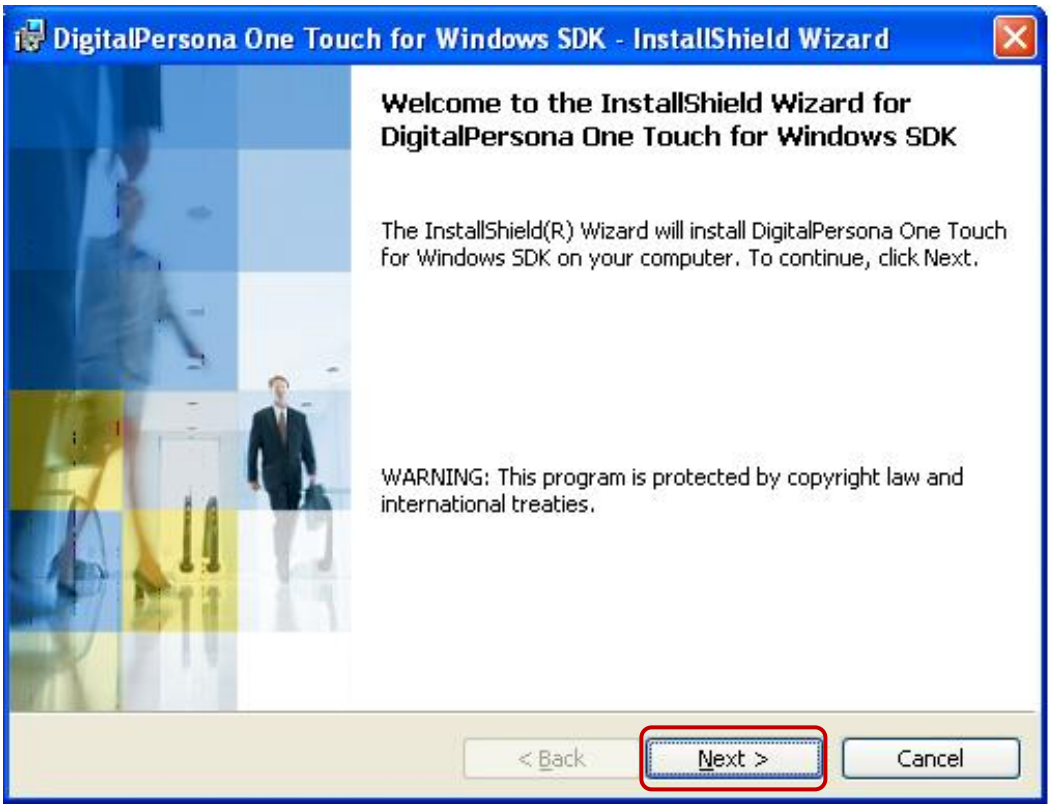



2. Select SDK folder.

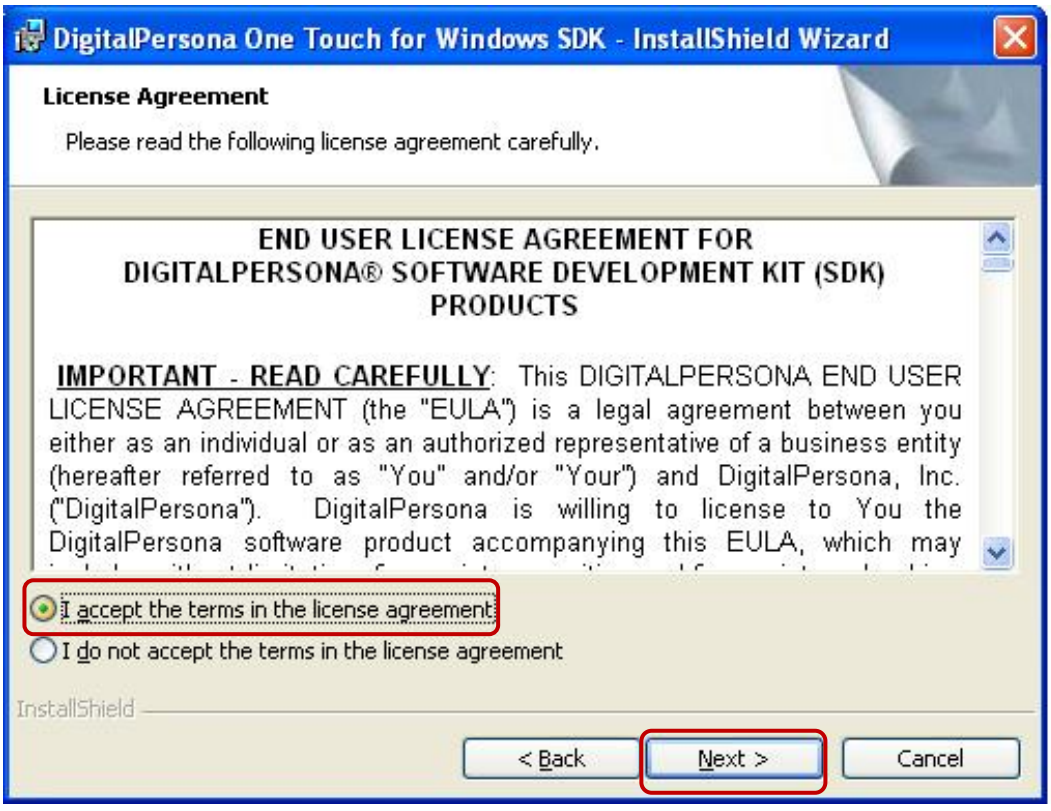



3. Run Setup.exe.

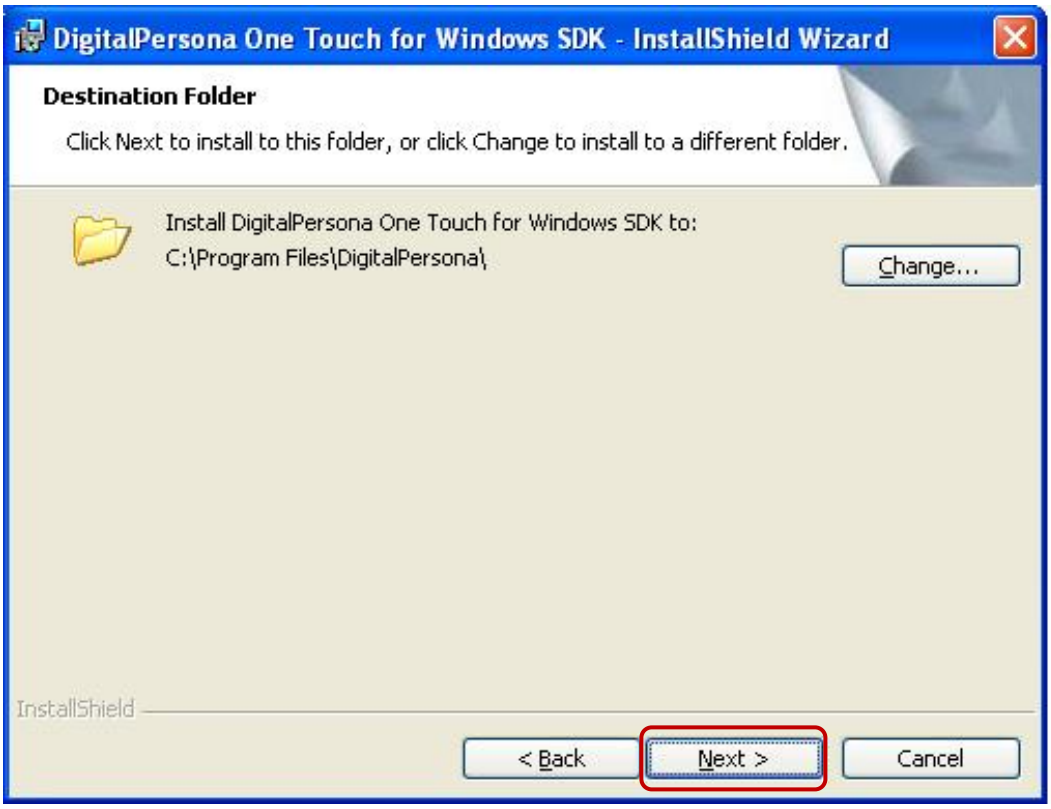
4.Click “**Next**”.


DigitalPersona One Touch for Windows SDK - InstallShield Wizard
Welcome to the InstallShield Wizard for DigitalPersona One Touch for Windows SDK
The InstallShield(R) Wizard will install DigitalPersona One Touch for Windows SDK on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

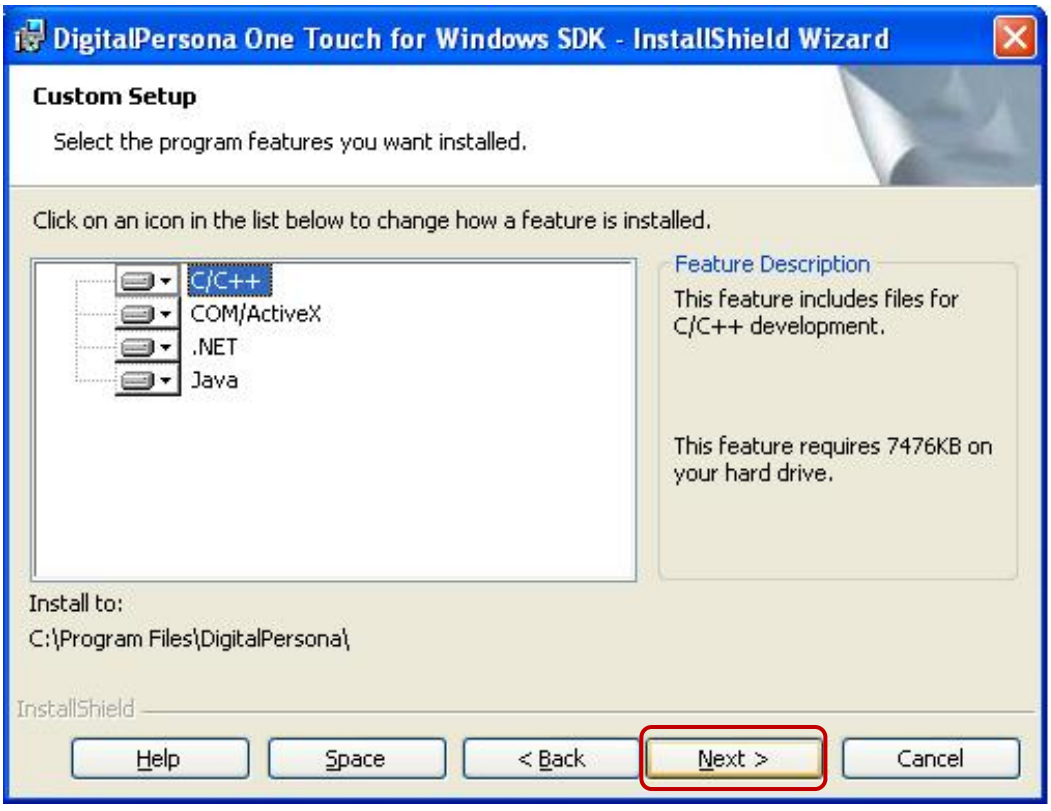
5. Select “ **I accept the terms in the license agreement**” and click “**Next**”.


DigitalPersona One Touch for Windows SDK - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
END USER LICENSE AGREEMENT FOR
DIGITALPERSONA® SOFTWARE DEVELOPMENT KIT (SDK)
PRODUCTS
IMPORTANT - READ CAREFULLY: This DIGITALPERSONA END USER LICENSE AGREEMENT (the "EULA") is a legal agreement between you either as an individual or as an authorized representative of a business entity (hereafter referred to as "You" and/or "Your") and DigitalPersona, Inc. ("DigitalPersona"). DigitalPersona is willing to license to You the DigitalPersona software product accompanying this EULA, which may
I accept the terms in the license agreement
I do not accept the terms in the license agreement
InstallShield
< Back
Next >
Cancel

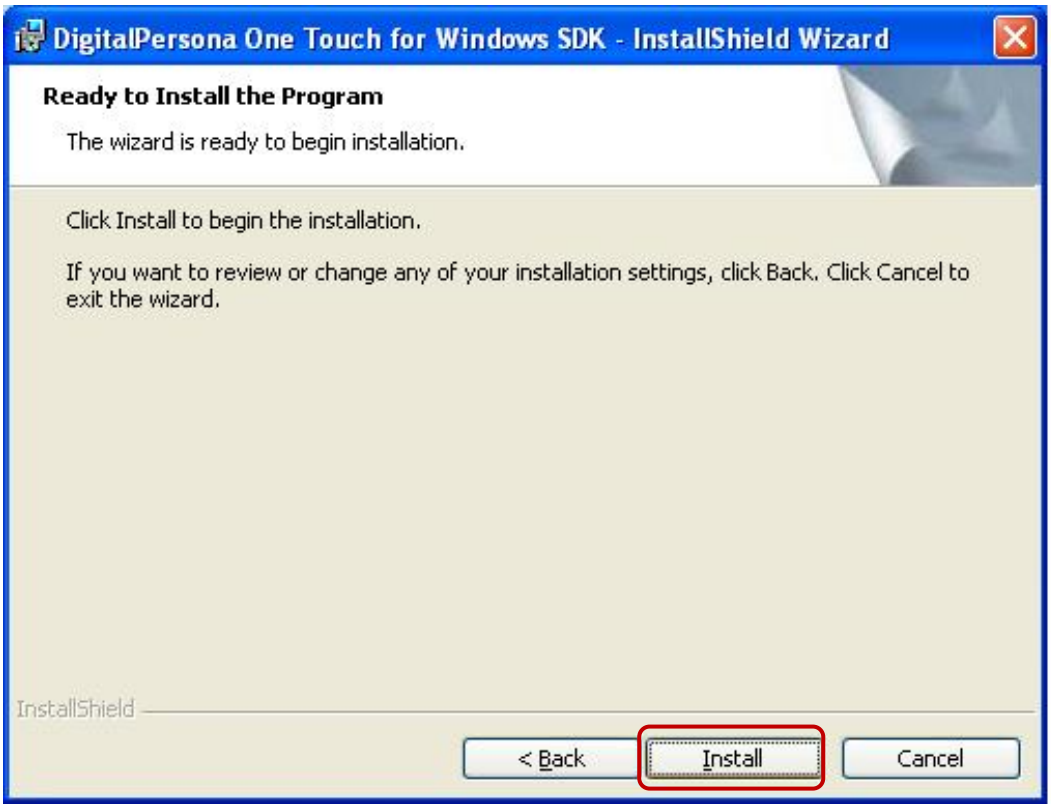
6. Click "**Next**".


DigitalPersona One Touch for Windows SDK - InstallShield Wizard
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
Install DigitalPersona One Touch for Windows SDK to:
C:\Program Files\DigitalPersona\
Change...
InstallShield
< Back
Next >
Cancel

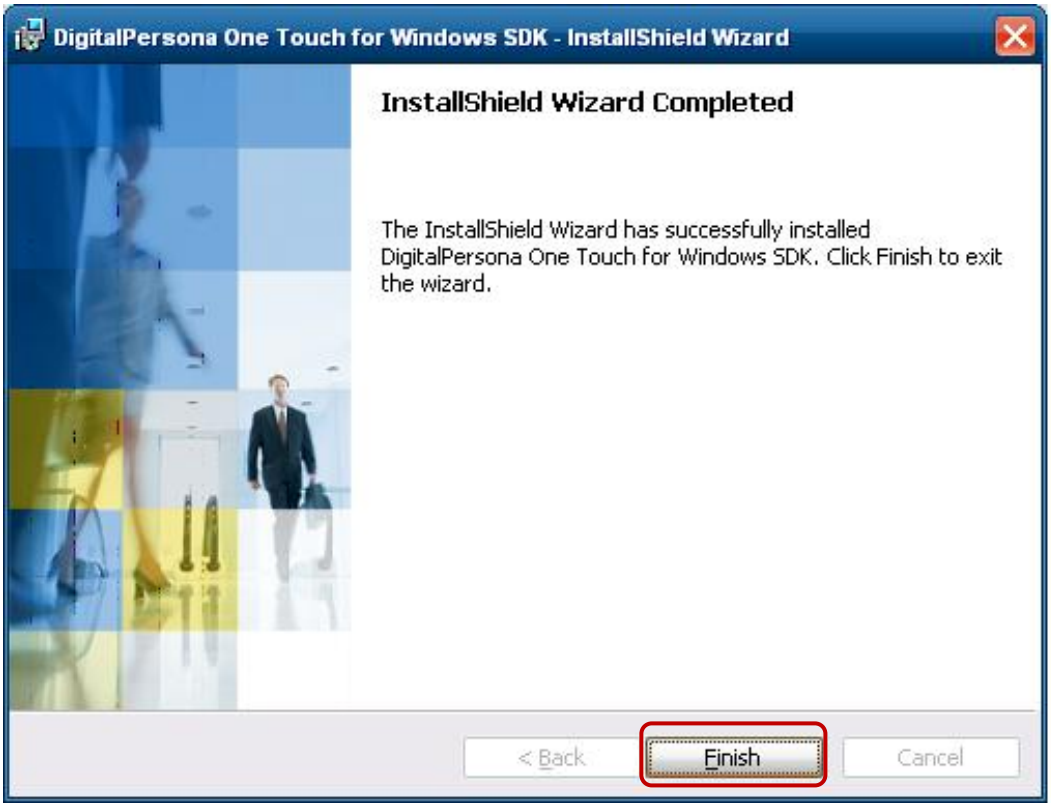
7. Click "**Next**".



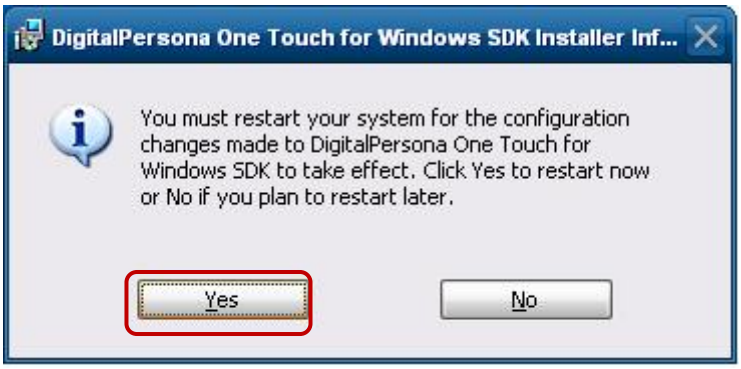
8. Click "**Install**".


DigitalPersona One Touch for Windows SDK - InstallShield Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
InstallShield
< Back
Install
Cancel

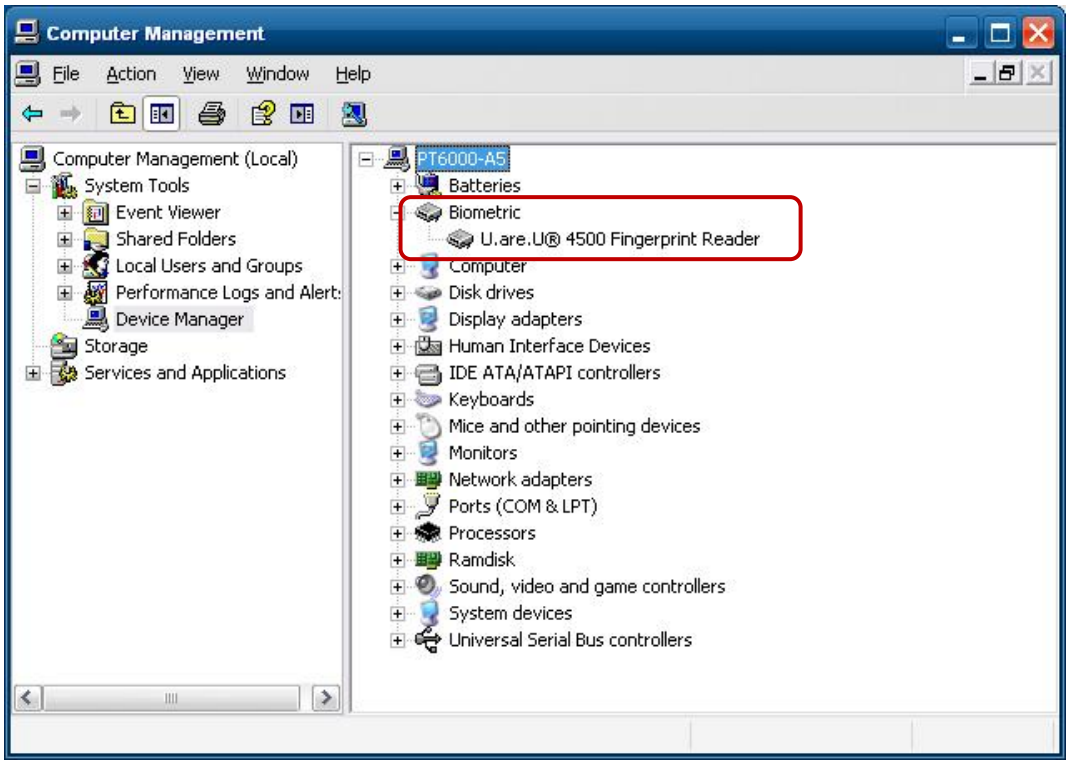
9. Click "**Finish**".


DigitalPersona One Touch for Windows SDK - InstallShield Wizard
InstallShield Wizard Completed
The InstallShield Wizard has successfully installed DigitalPersona One Touch for Windows SDK. Click Finish to exit the wizard.
< Back
Finish
Cancel

10. Restart systems.

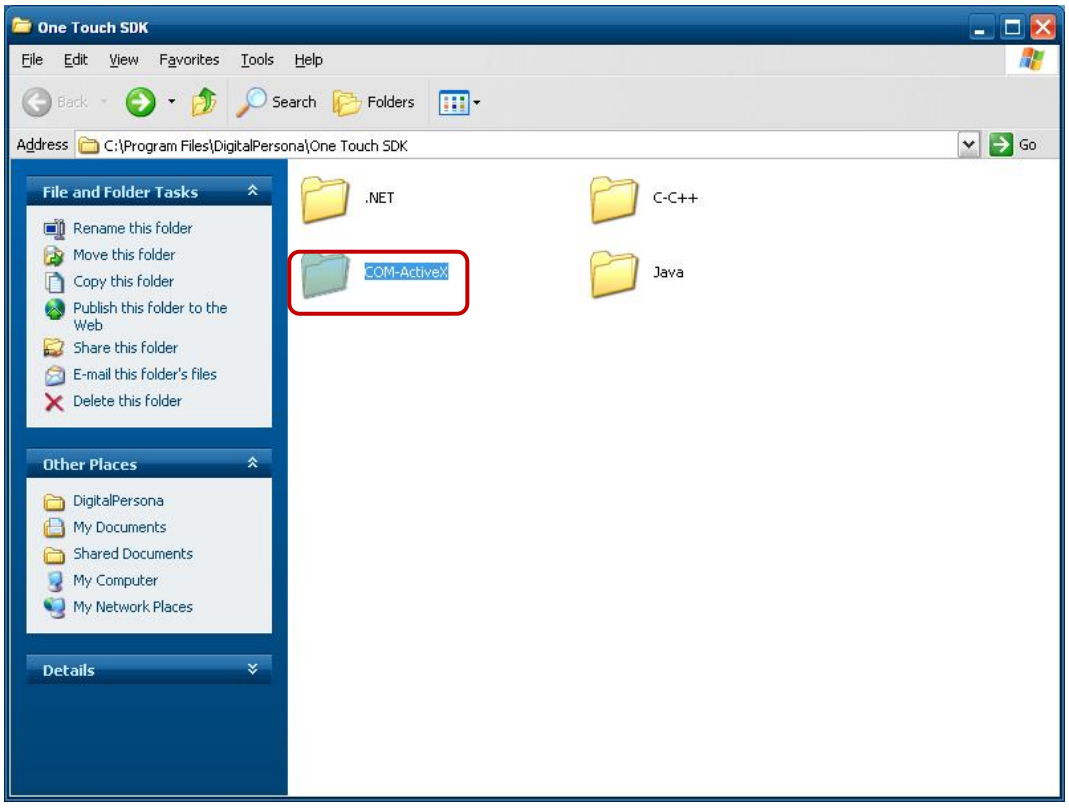

DigitalPersona One Touch for Windows SDK Installer Inf...
You must restart your system for the configuration changes made to DigitalPersona One Touch for Windows SDK to take effect. Click Yes to restart now or No if you plan to restart later.
Yes
No

11. Check Fingerprint reader in Device Manager.

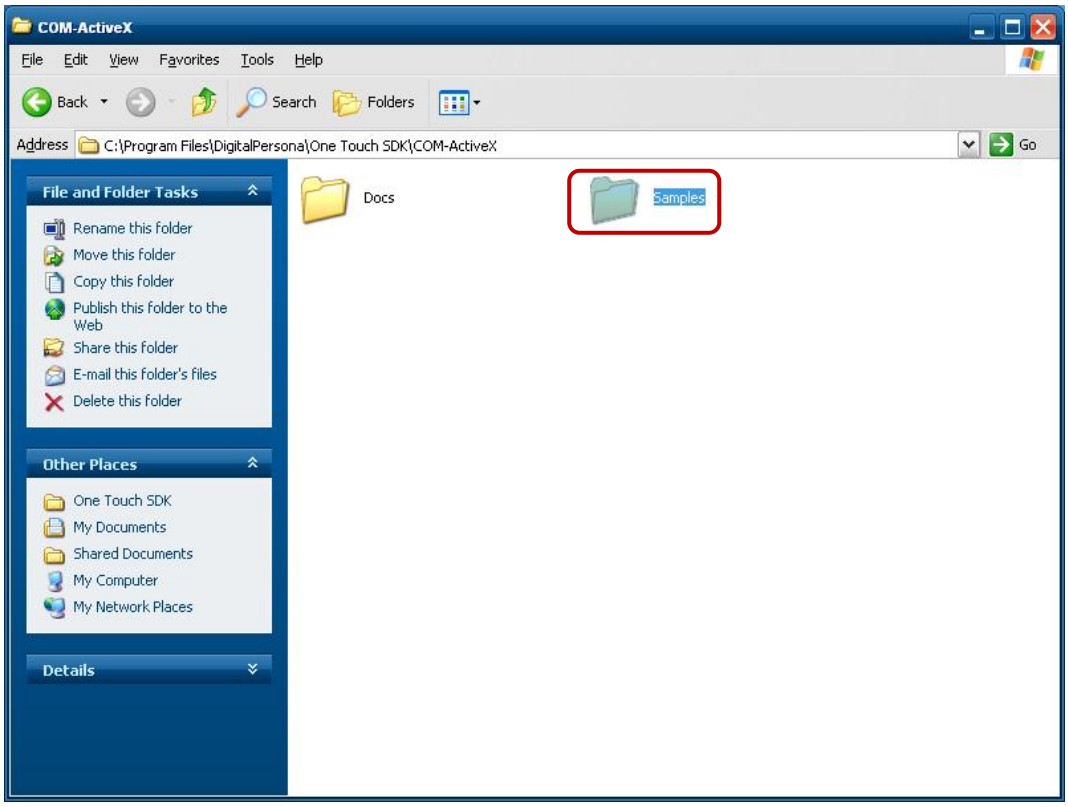


12. Launch Fingerprint reader from start menu

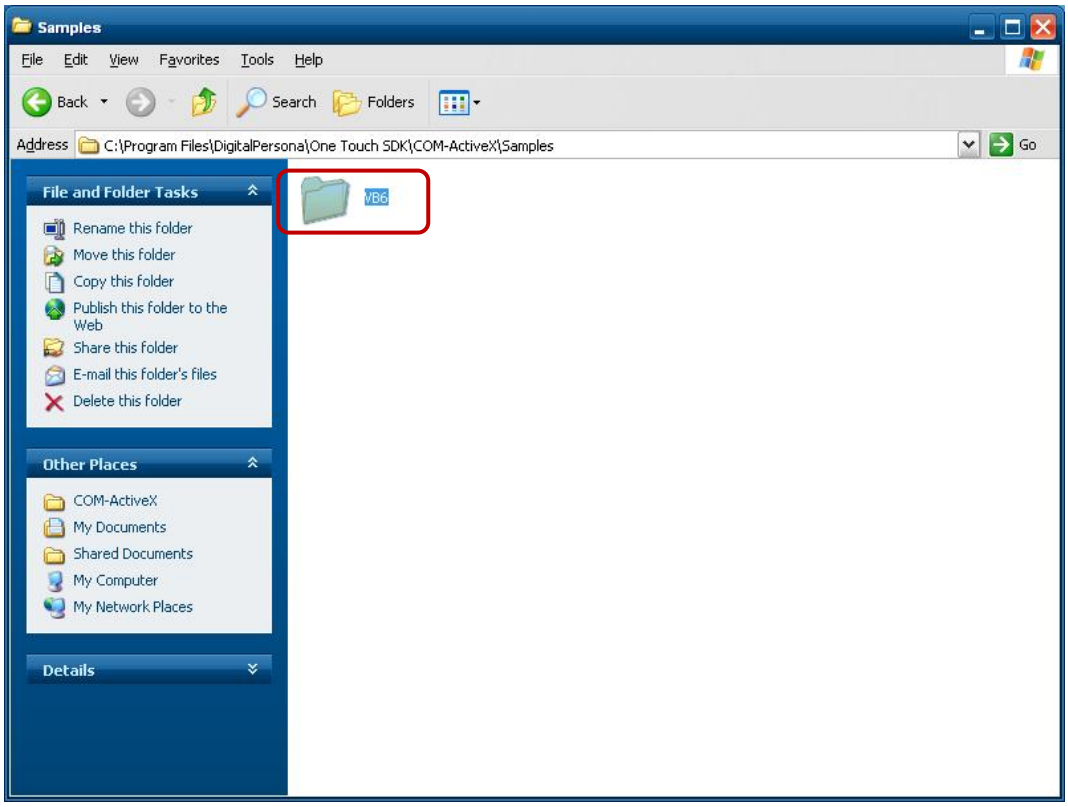
13. Select “COM-ActiveX”



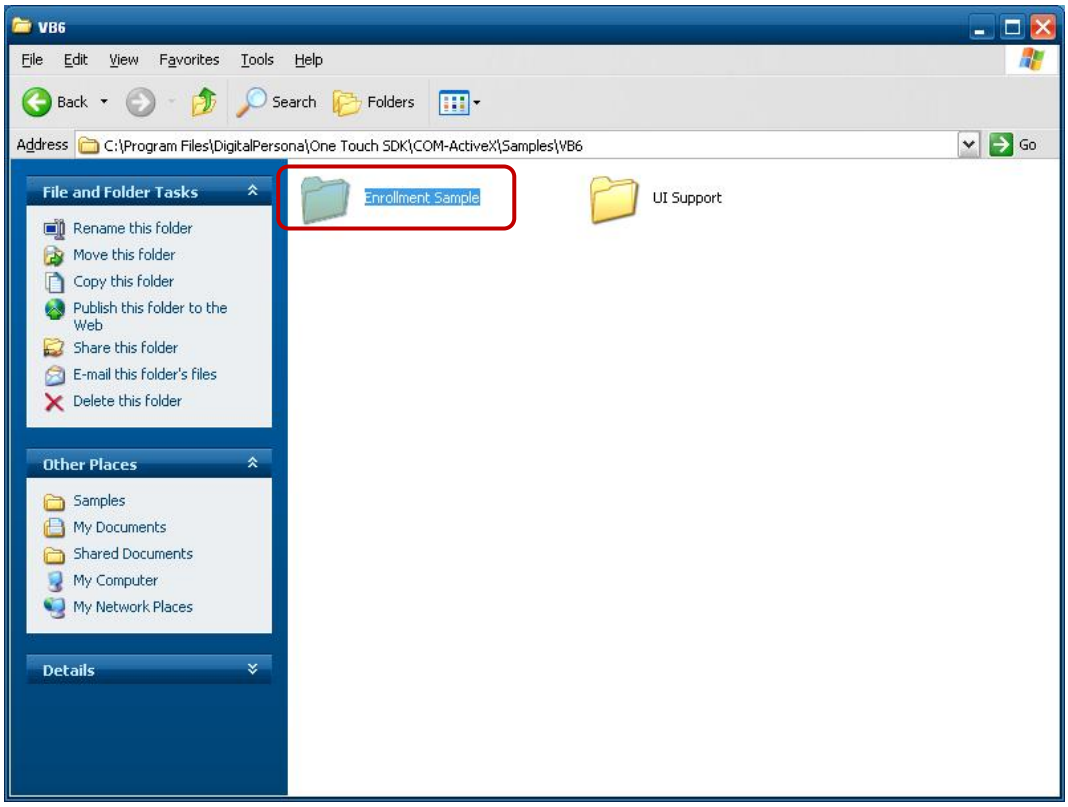
14. Select "**Sample**"



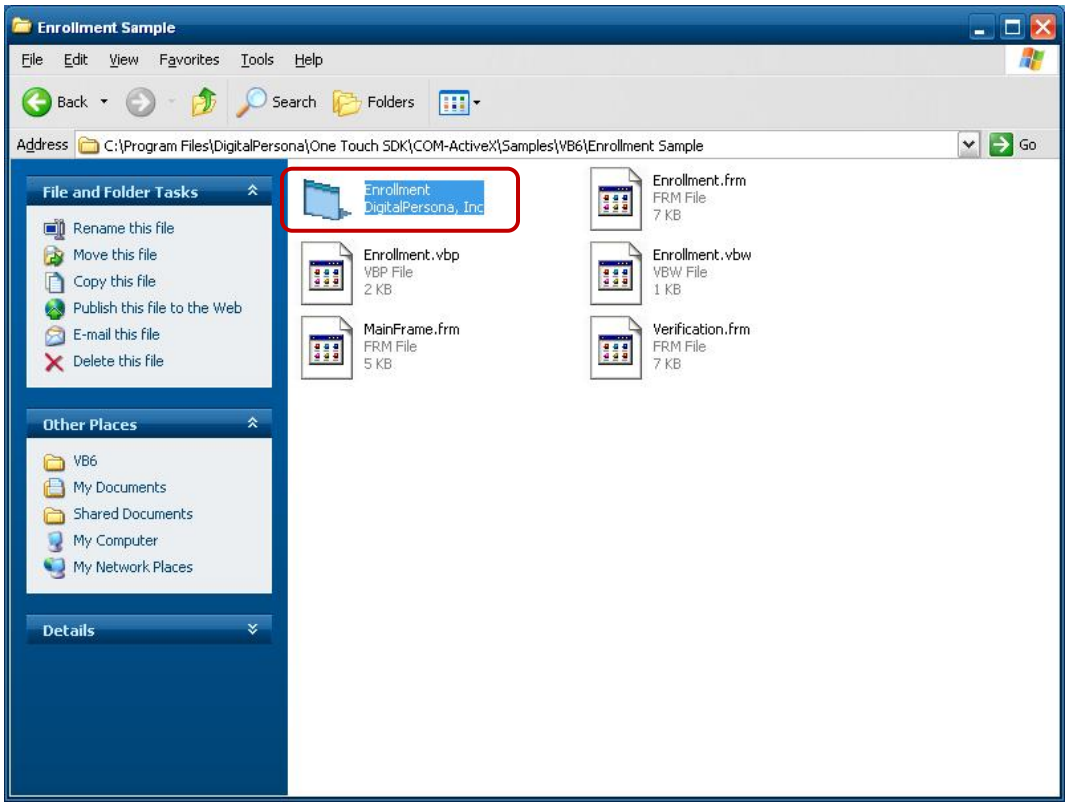

15. Select "**VB6**'.



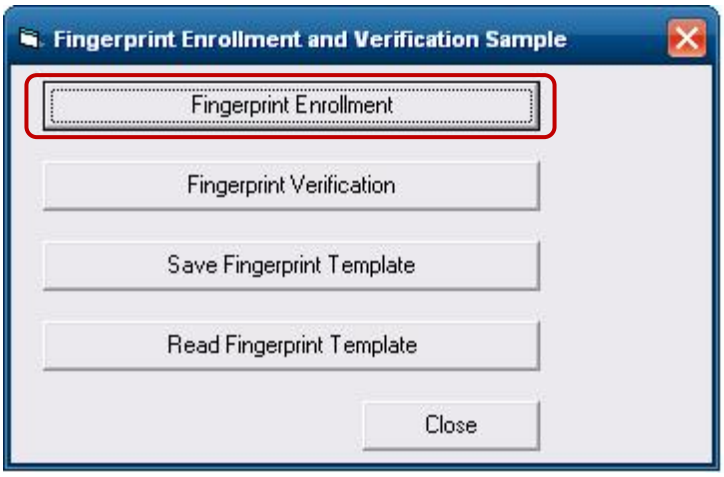
16. Select "**Enrollment Sample**".

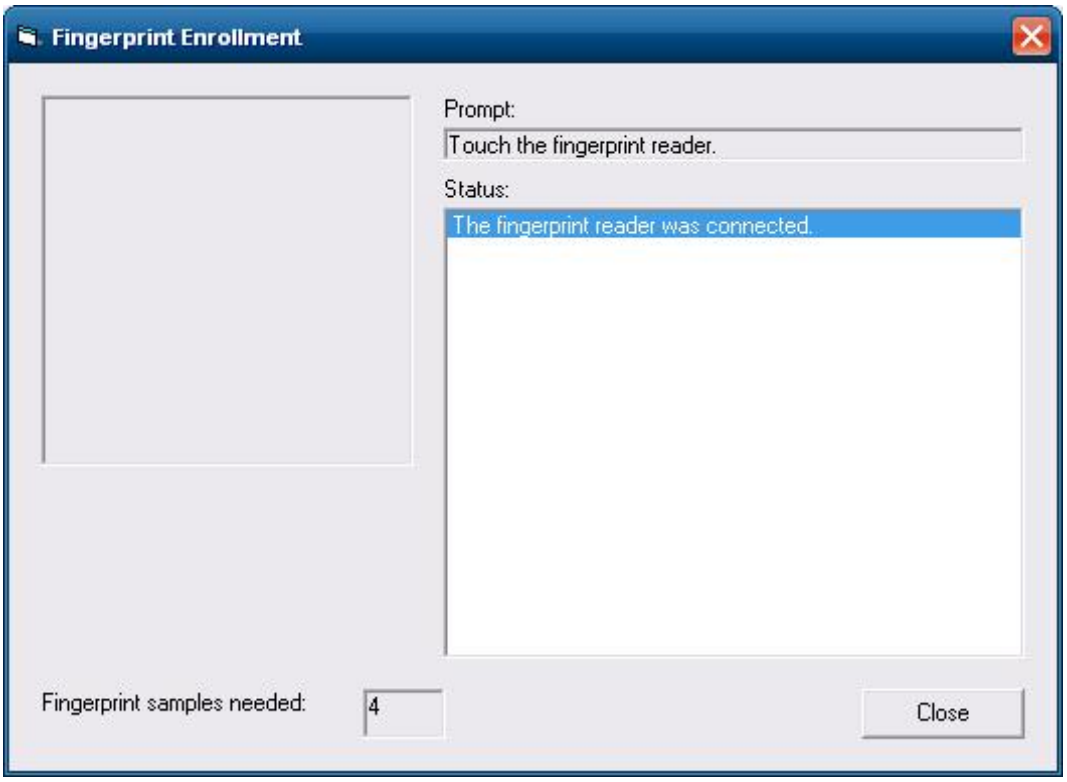



17. Enroll the fingerprint by the "**Enrollment**"



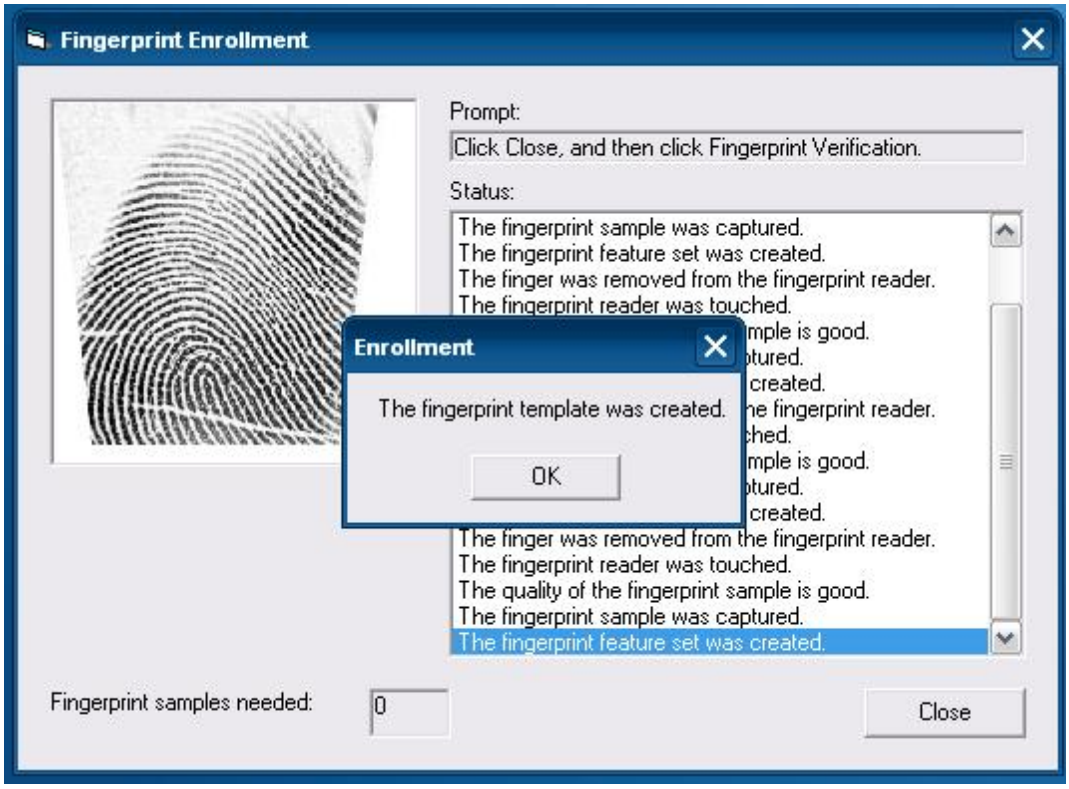
18. Select "**Fingerprint Enrollment**"



19. Put your finger on fingerprint reader and follow the direction to enroller your fingerprint, it need scan your fingerprint 4 times

20. After enroller finish it will popup a dialog box

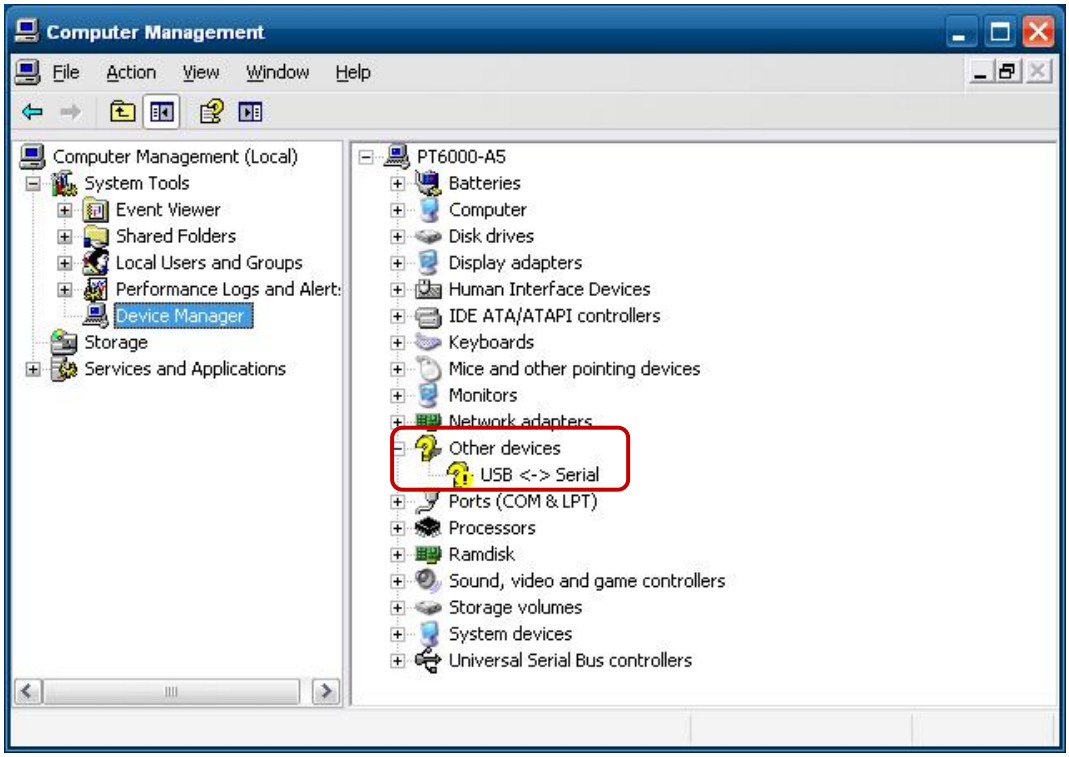

Fingerprint Enrollment
Prompt:
Click Close, and then click Fingerprint Verification.
Status:
The fingerprint sample was captured.
The fingerprint feature set was created.
The finger was removed from the fingerprint reader.
The fingerprint reader was touched.
Enrollment
The fingerprint template was created.
OK
The finger was removed from the fingerprint reader.
The fingerprint reader was touched.
The quality of the fingerprint sample is good.
The fingerprint sample was captured.
The fingerprint feature set was created.
Fingerprint samples needed:
0
Close

## 6-4 RFID

1. Install (Operating System: Microsoft Windows POSReady 2009)

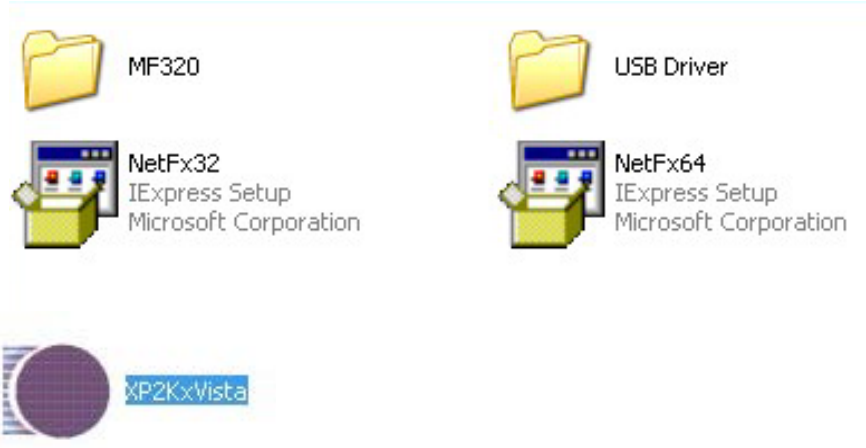
1.1 Check the Device Manager to verify the status of RFID reader.

Computer Management -> Device Manager -> Other devices (The device will show a question mark if the installation is not done properly.)

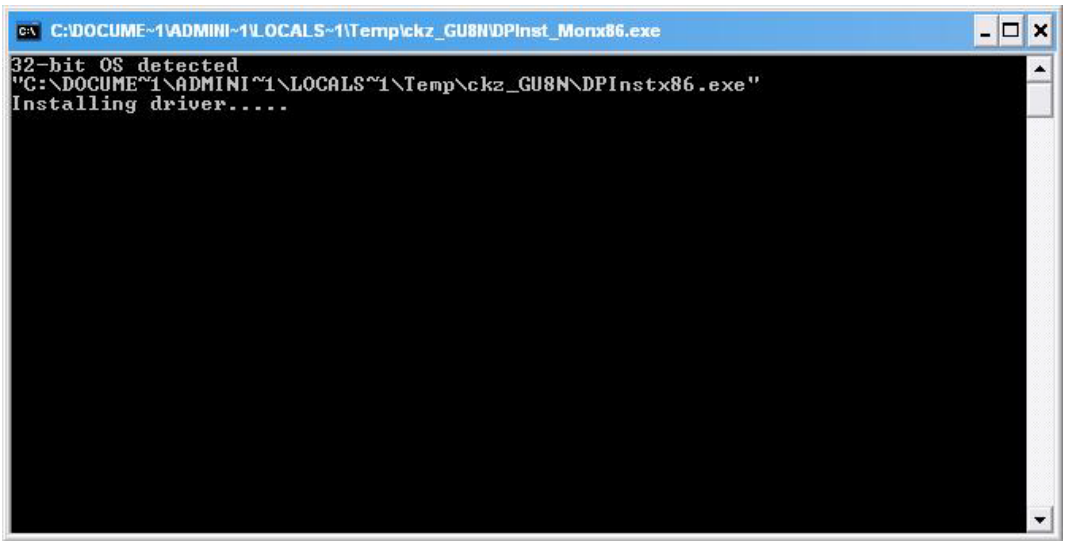



1.2 Install RFID driver，file name：XP2KxVista.exe

2-1 Path:\USB Driver\ XP2KxVista.exe

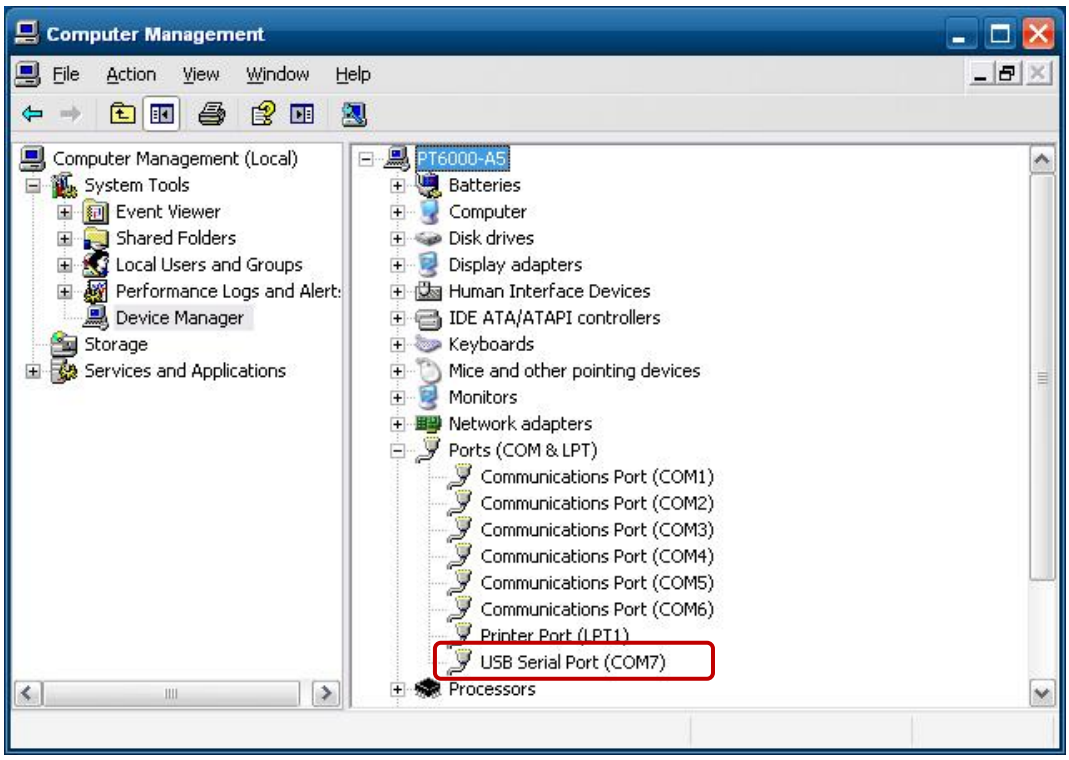


1.2.1 After clicking Next, A pop up console window appears as below.



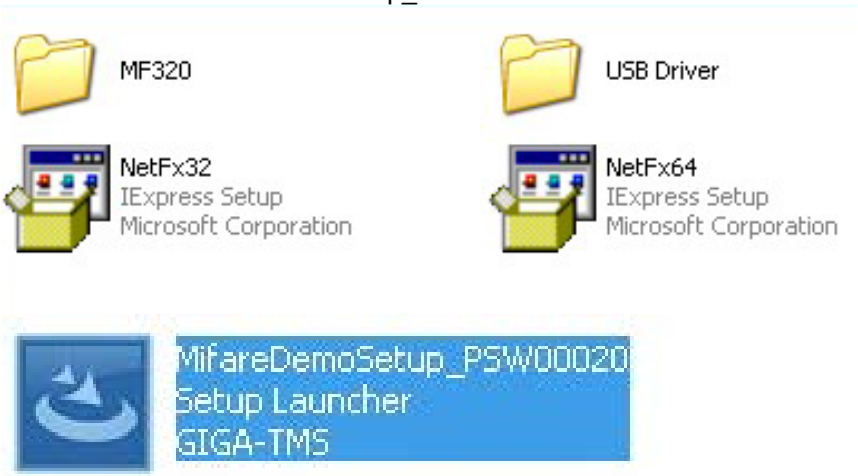

1.2.2 Check the Device Manager to verify the status of RFID reader.

Computer Management -> Device Manager -> Ports (COM & LPT)

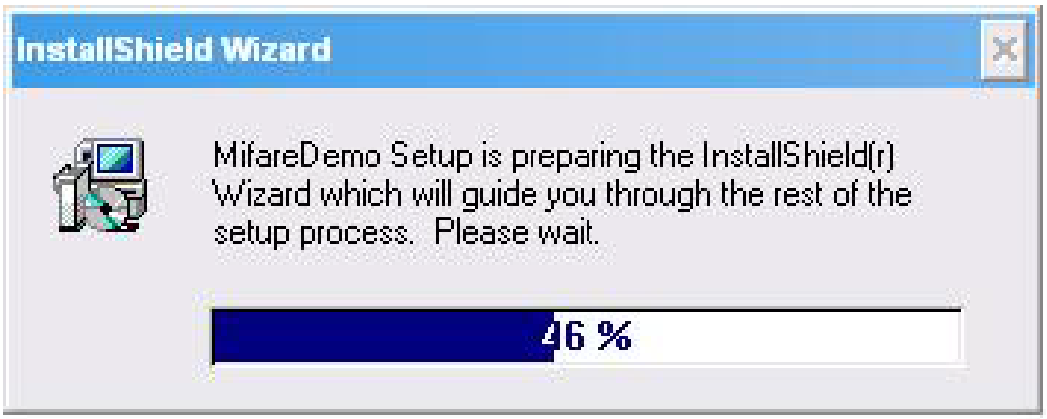


1.3 install RFID utility

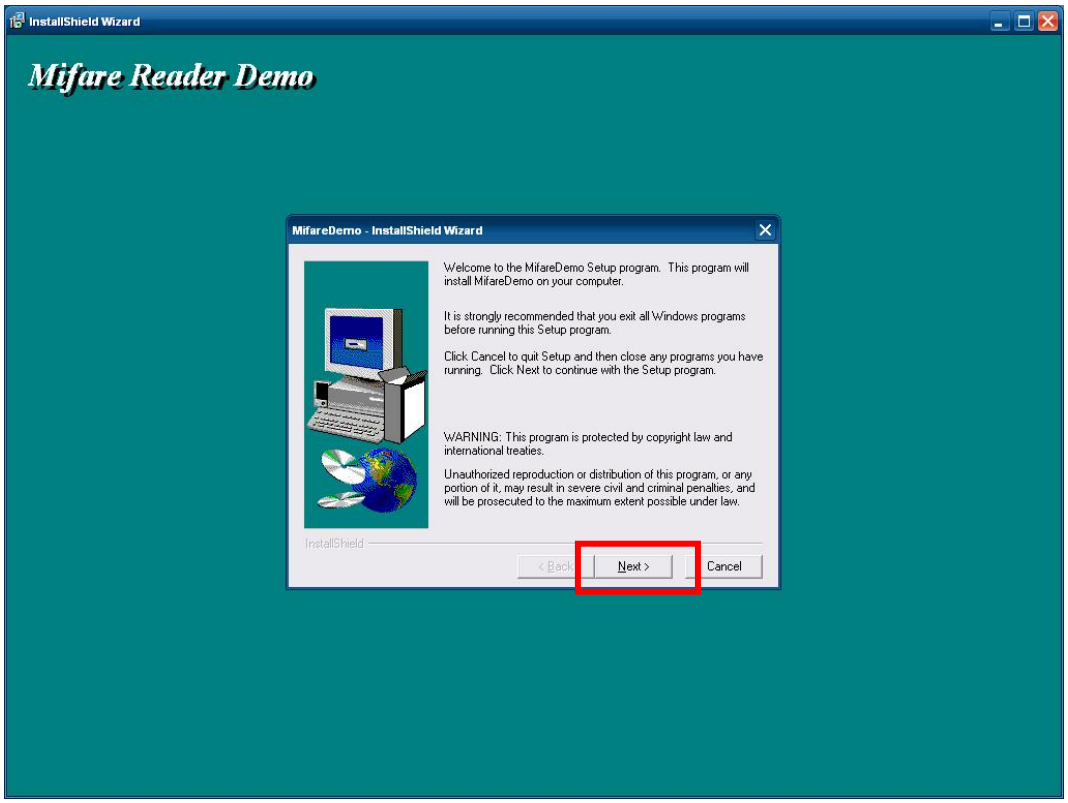
MifareDemoSetup_PSW00020.exe
3-1 Path:\MF320\MifareDemoSetup_PSW00020.exe



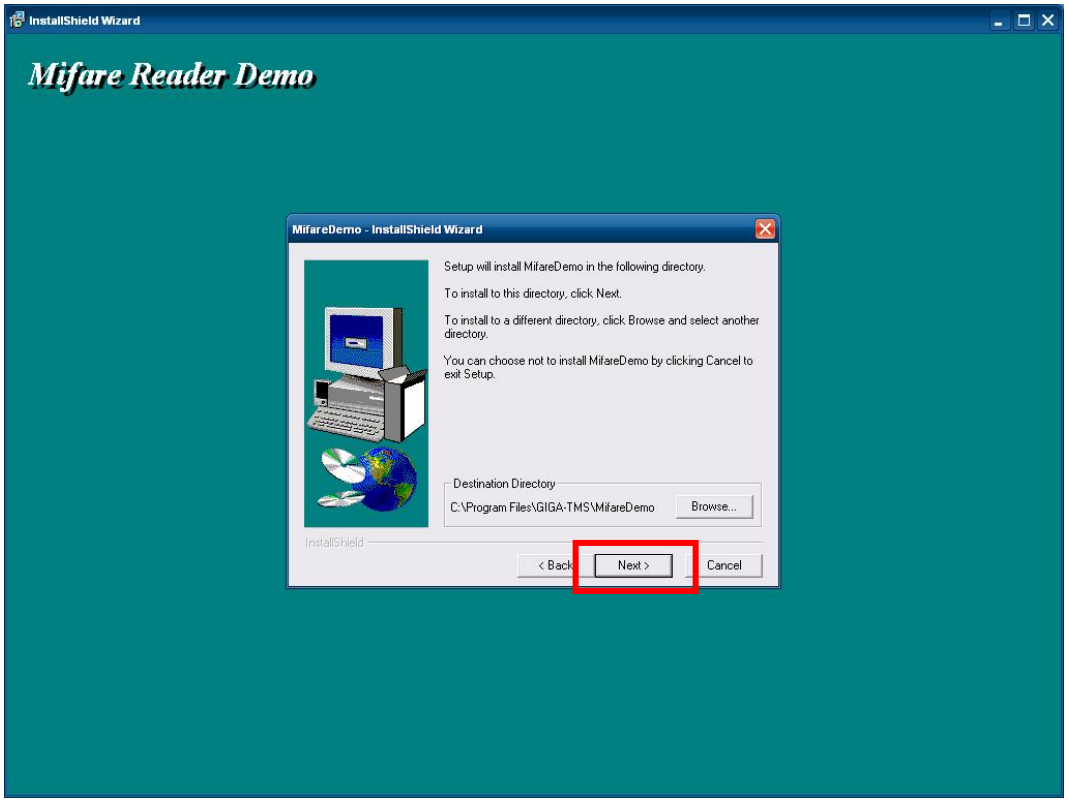

1.3.1 InstallShield Wizard will be activated.


InstallShield Wizard
MifareDemo Setup is preparing the InstallShield(r) Wizard which will guide you through the rest of the setup process. Please wait.
46 %

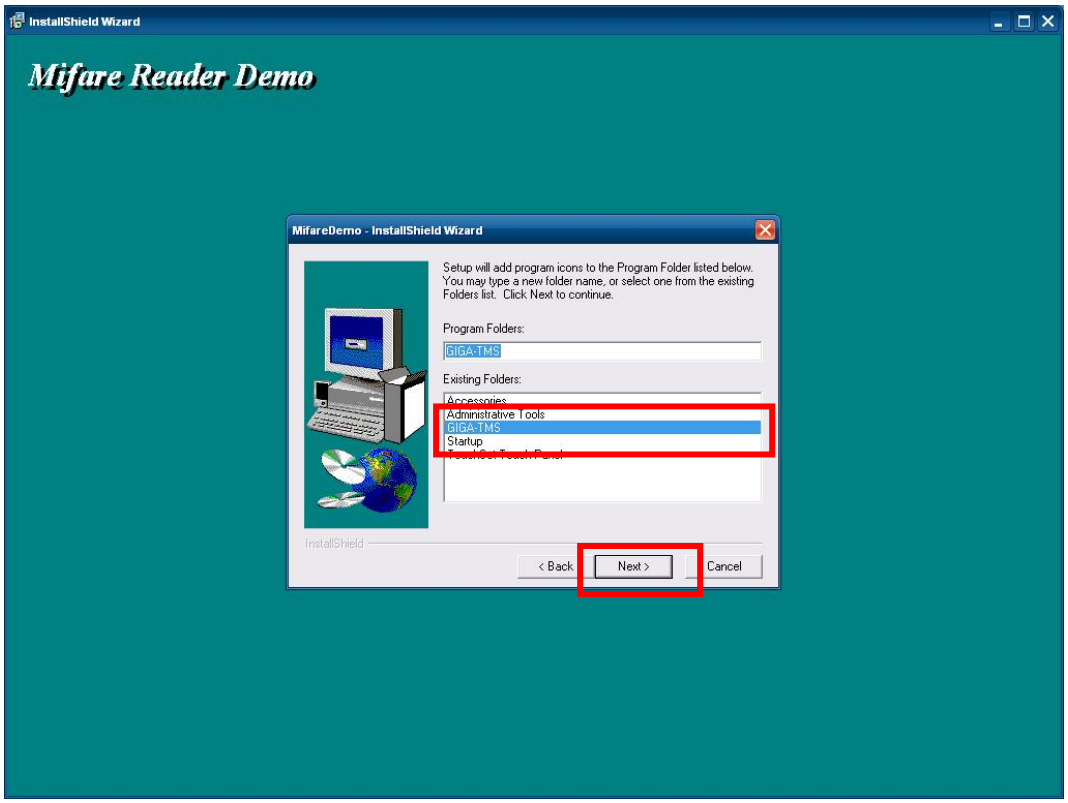
1.3.2 Click “**Next**”.


InstallShield Wizard
Mifare Reader Demo
MifareDemo - InstallShield Wizard
Welcome to the MifareDemo Setup program. This program will install MifareDemo on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
InstallShield
< Back
Next >
Cancel

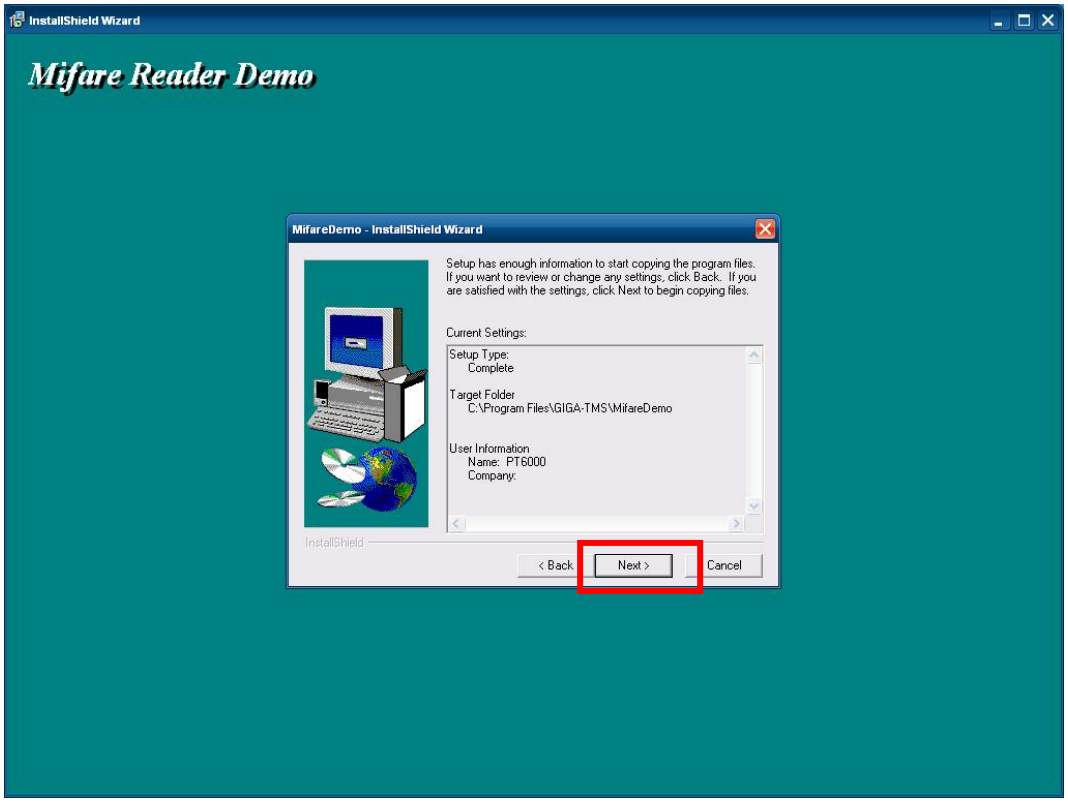
1.3.3 Click “**Next**”.


InstallShield Wizard
Mifare Reader Demo
MifareDemo - InstallShield Wizard
Setup will install MifareDemo in the following directory.
To install to this directory, click Next.
To install to a different directory, click Browse and select another directory.
You can choose not to install MifareDemo by clicking Cancel to exit Setup.
Destination Directory
C:\Program Files\GIGA-TMS\MifareDemo
Browse...
InstallShield
< Back
Next >
Cancel

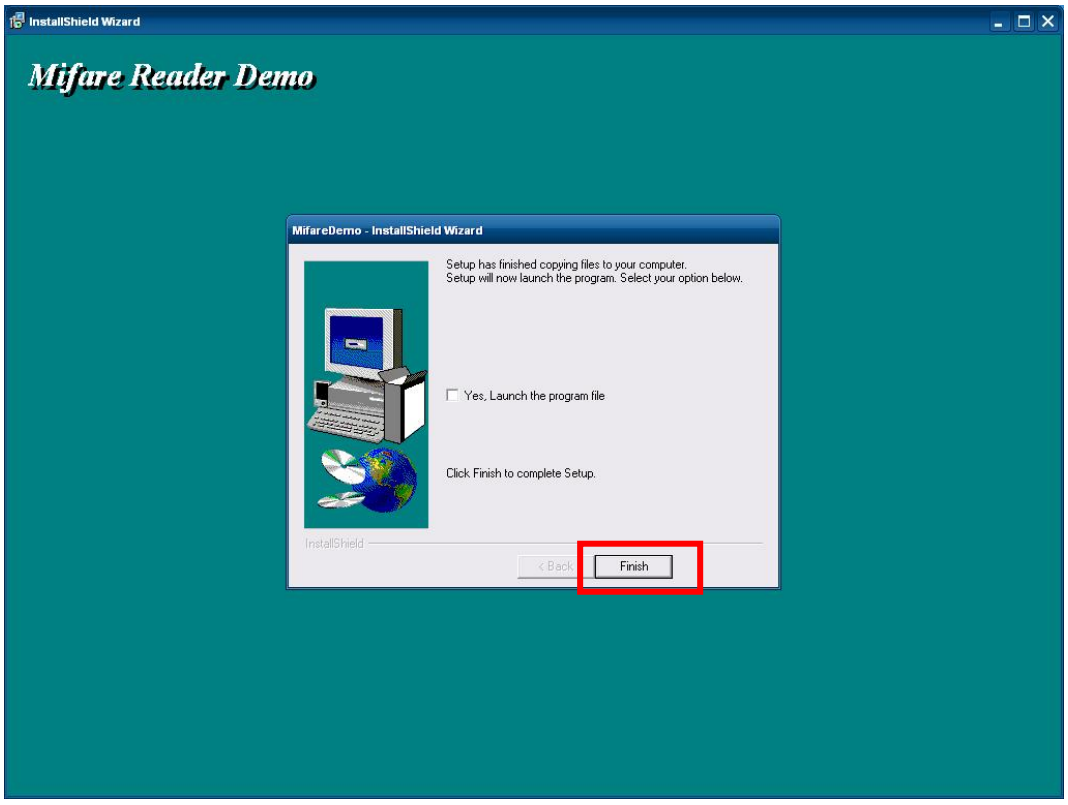
1.3.4 Click “**Giga-TMS**” & “**Next**”.



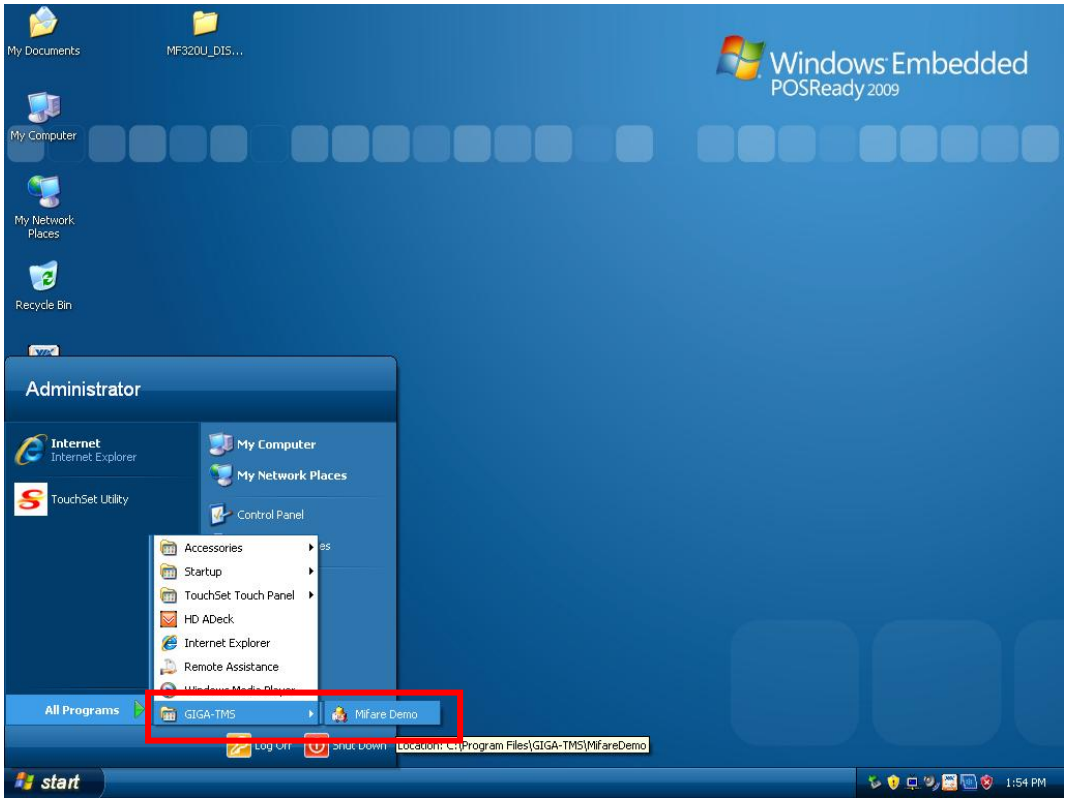

1.3.5 Click “**Next**”.


InstallShield Wizard
Mifare Reader Demo
MifareDemo - InstallShield Wizard
Setup has enough information to start copying the program files. If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.
Current Settings:
Setup Type:
Complete
Target Folder
C:\Program Files\GIGA-TMS\MifareDemo
User Information
Name: PT6000
Company:
InstallShield
< Back
Next >
Cancel

1.3.6 Click "**Finish**"

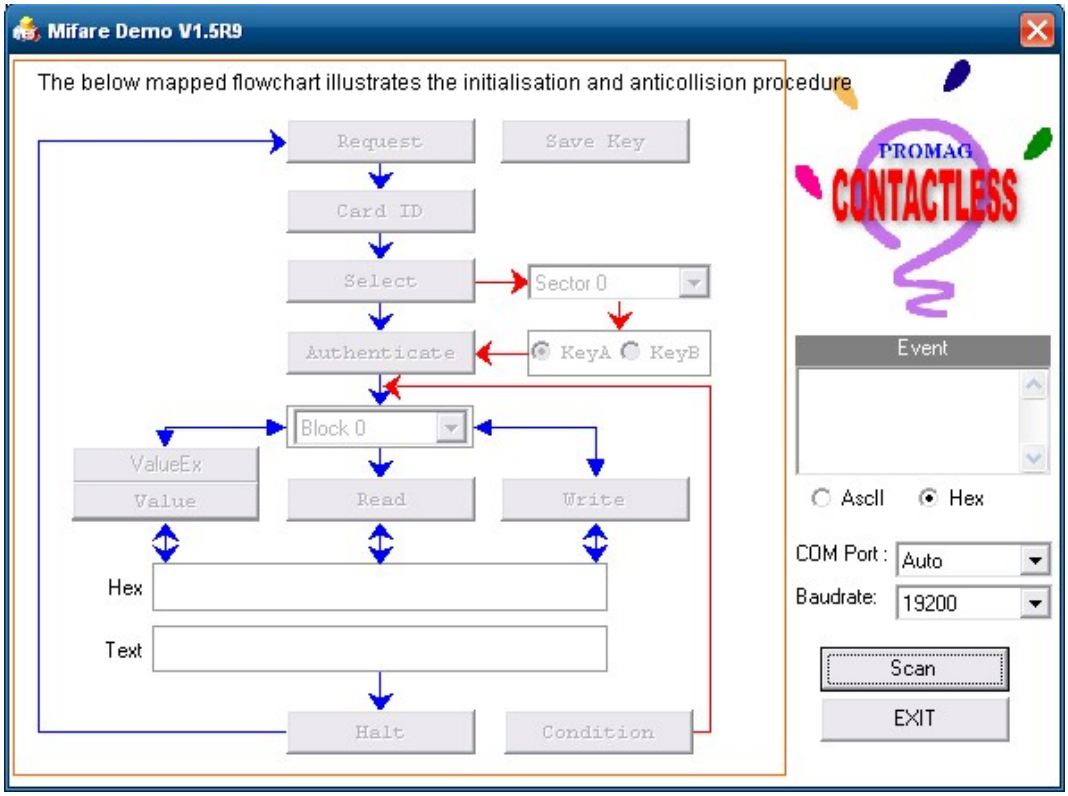

InstallShield Wizard
Mifare Reader Demo
MifareDemo - InstallShield Wizard
Setup has finished copying files to your computer.
Setup will now launch the program. Select your option below.
Yes, Launch the program file
Click Finish to complete Setup.
InstallShield
< Back
Finish

2. Run RFID demo program. Start -> All Programs -> GIGA-TMS -> **Mifare Demo**

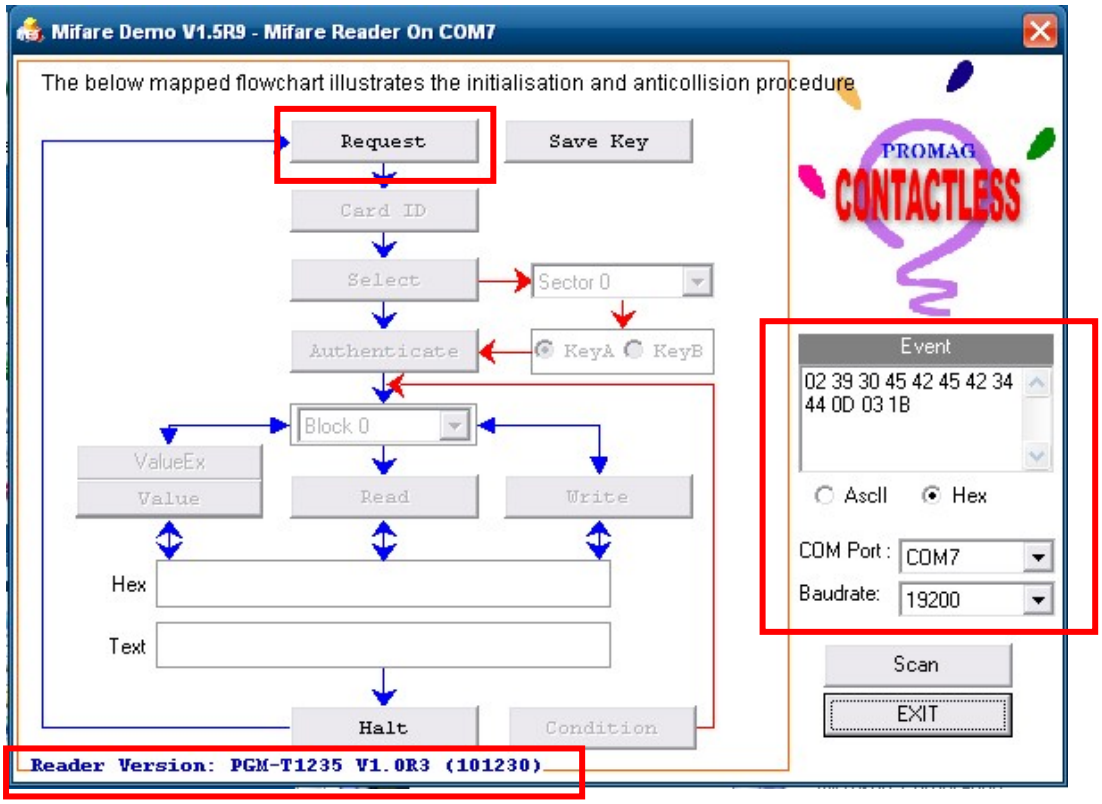


2.1 Run “**Auto Scan**” Demo AP will detect the RFID reader automatically.

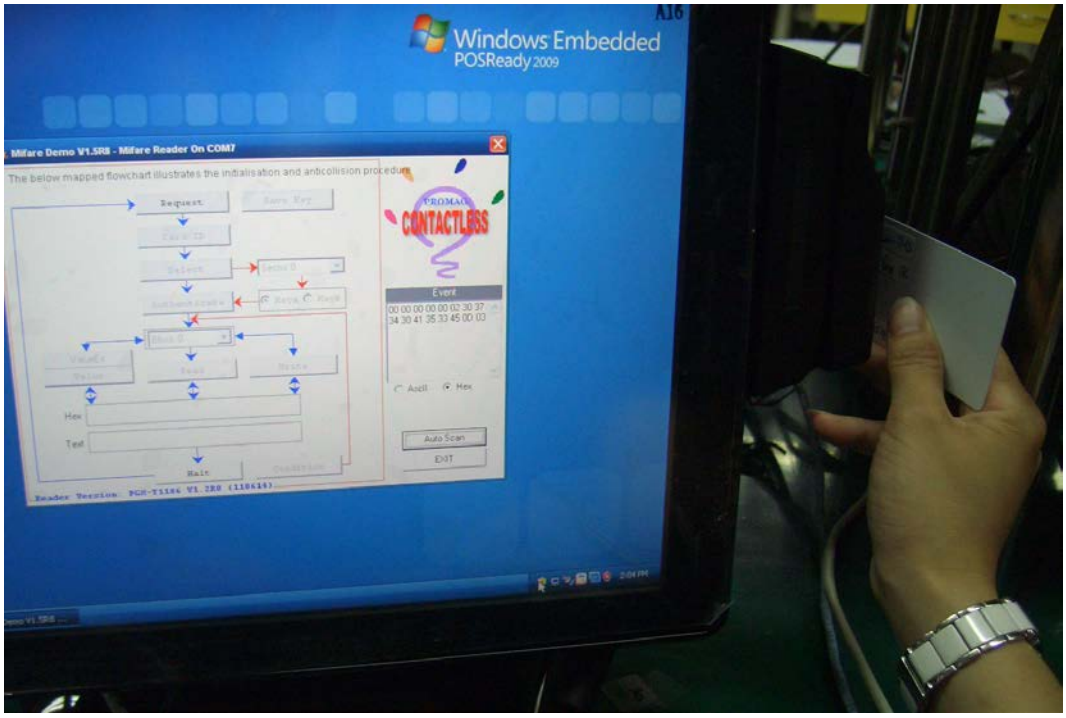
Or select the RFID COM port



2.2 After finishing the AutoScan, Request box will be ready for the click and Reader Version will show on the position as marked. (Reader Version: PGM-T1235 V1.0R3 (101230) Place Mifare Card to the RFID reader area. Event Dialog window gets the data from the Mifare Card.

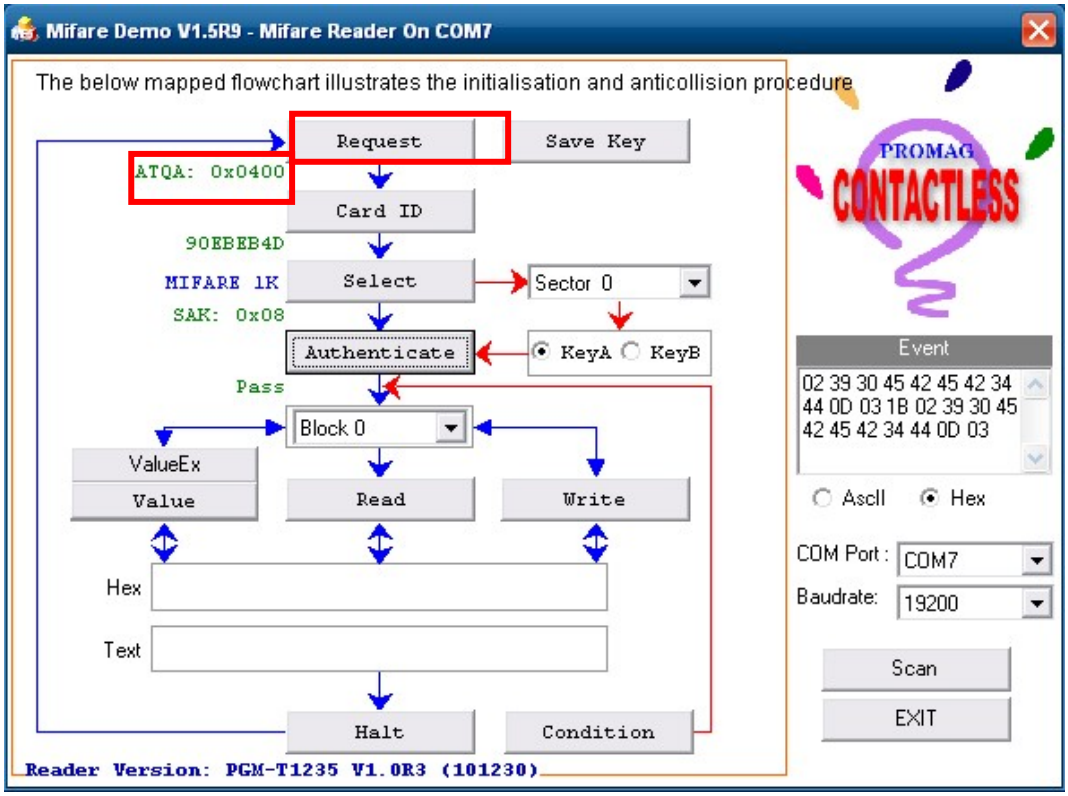



Place the RFID card on the RFID reader.

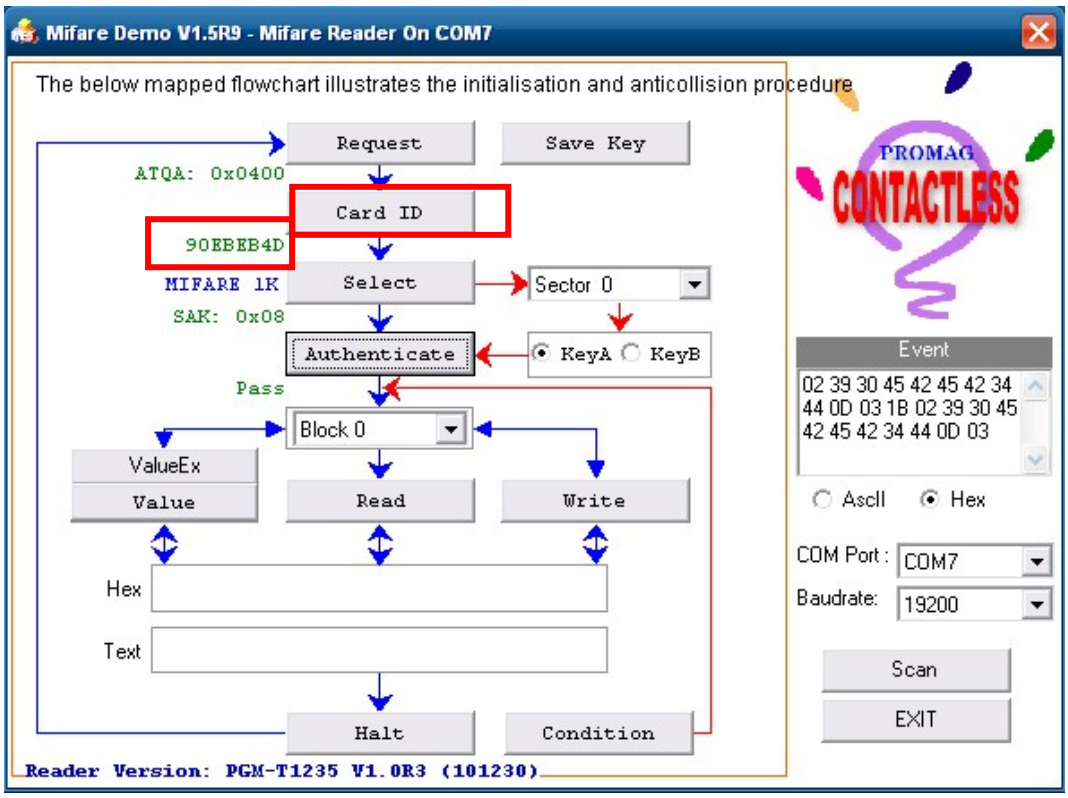


2.3 **Card type** will be recognized when you click "**Request**".

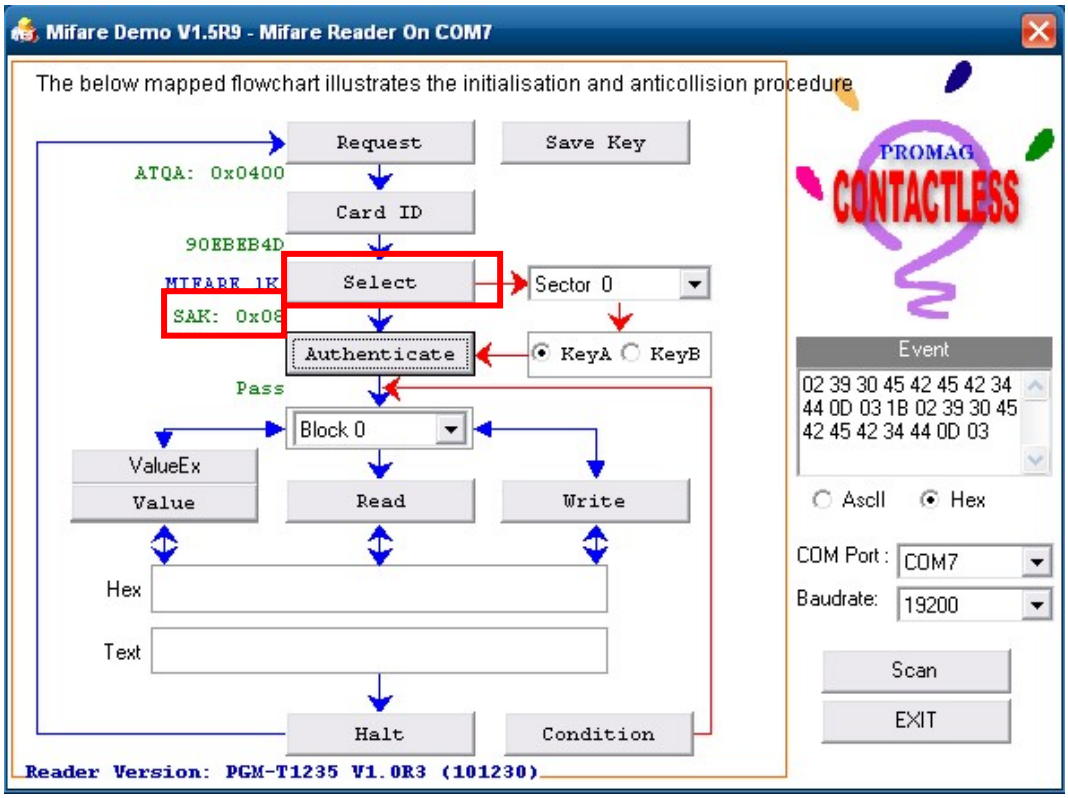
(Your Mifare card should be placed on the RFID reader area.)



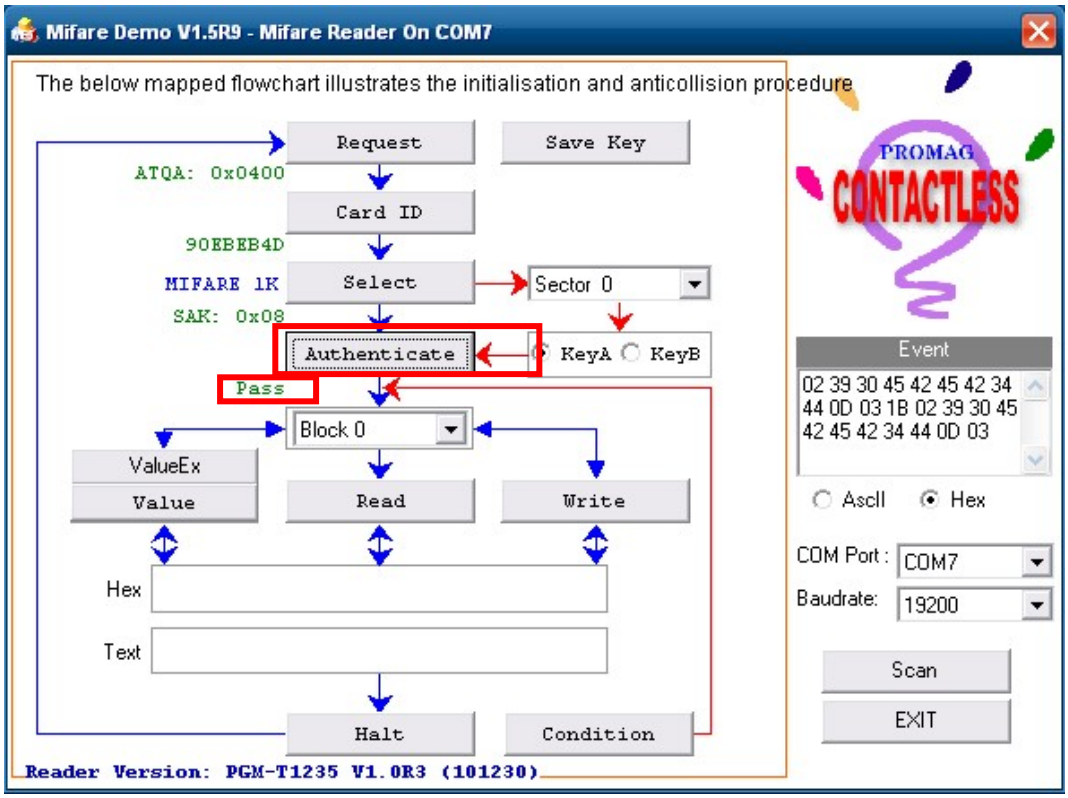

2.4 **Card ID** will be recognized when you click "**Card ID**".



2.5 **SAK** will be read when you click "**Select**".




2.6 The result will show when you click "**Authenticate**".



## 6-5 Internal VFD

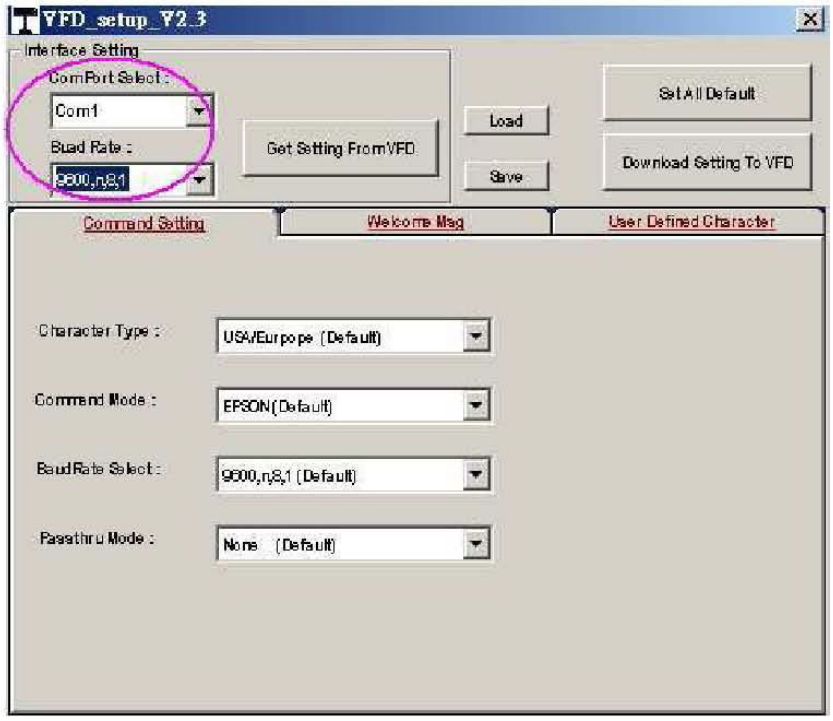
Specification

| | | |
|---|---|---|
| **General** | Display Method | Vacuum Fluorescent Display(blue-Green) |
| | Number of Characters | 40 (20 Columns X 2 Lines) |
| | Brightness | 500 ~ 1000 cd/m2 |
| | Character Font | 5X7 Doc Matrix |
| | Character Type | 95 Alphanumeric, 32 International Characters |
| | Character Size | 6.75(H) X 3.75(W)mm |
| | Doc Size (X x Y) | 0.55 x 0.75 mm |
| | Download Characters | 9 Characters |
| | Height | 4.70” (120mm) with Stand-alone Base |
| | | 9.80” (250mm) with Base and 1 Extension |
| | Panel Dimension | 75(H) x 170(W) x 50(D) mm |
| | Pole Dimension | Per Support Length: 130 mm |
| | Base Dimension | 33(H) x 159.8(W) x 100(D) mm |
| | Viewing Angle | Max. 90$^{o}$ |
| | Horizontal Rotation | Max. 355 $^{o}$ |
| | Weight | Approx. 980 Grams |
| **Commands Mode** | LD220, EPSON, AEDEX, UTC/S, UTC/P, ADM788, DSP800, CD5220, EMAX, LOGIC CONTROL, Ultimate | |
| **Language Support** | US English, Int’l English, Bosnia, Croatian, Czech, Danish, Dutch, Estonian, Faroese, Finnish, Flemish, French, Fr Canadian, German, Greek, Hebrew, Hungarian, Icelandic, Indonesian, Irish, Italian, Katakana, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Romanian, Russian, Slovene, Slovak, Spanish, Swedish | |
| **Interface** | RS-232(Serial)/USB | |
| **Connection** | Baud Rate | Direct Connection 9600 or 19,200 bps |
| **Reliability** | MTBF | 30,000 Hours |
| **Power** | Consumption | 5-12 VDC |
| **Safety** | EMC Standards<br>Safety Standards | FCC, CE |

# Setup Software Utility Guide

1. Power on , and waiting test page of EEPROM test, Baud rate, and Command page. And you may set up the customer display by “VFD_Setup.exe” Utility.

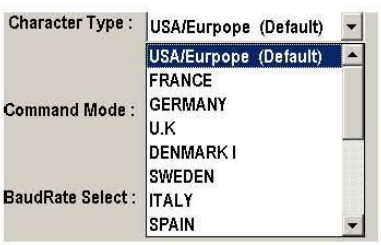
2. To execute “VFD_Setup.exe” for setup communication between display and Utility

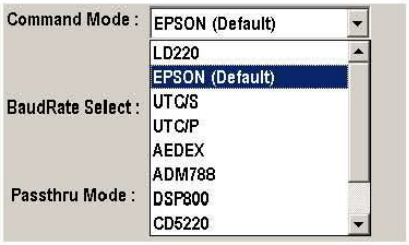


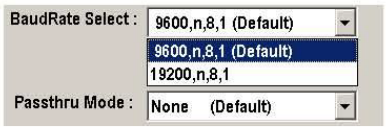

The Baud Rate will show on states page of the Utility (Note: You may check it when power on the display)

3. “Get Setting From VFD” button
To get all setting from the display and it’ll refresh the “VFD_Setup.exe” utility

4. “Character Type”/ “Command Mode”/ “BaudRate Select”/ “Passthru Mode”
Please refer to Chapter 4-5 user manual



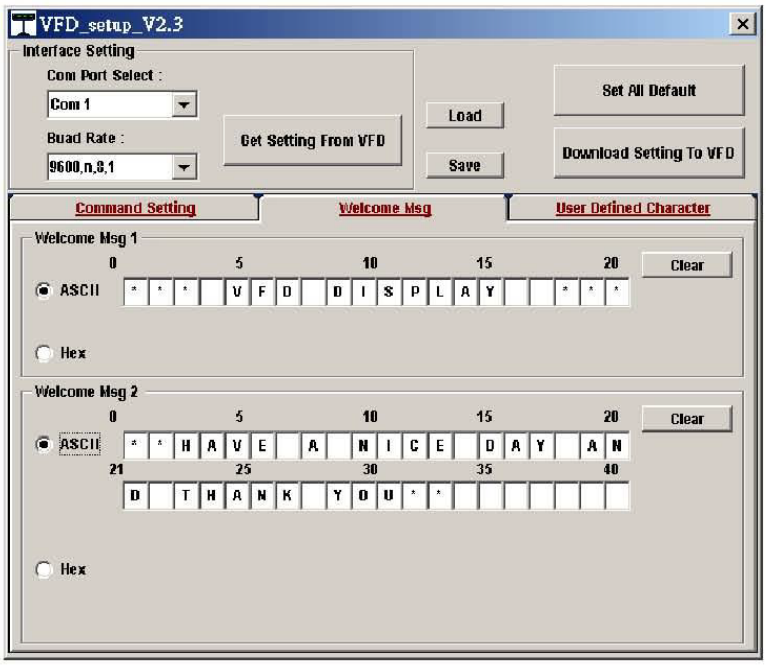






5. "Set All Default" button
   To show default setting, the Default table is,
   Character Type : USA
   Command Type : EPSON
   BaudRate Setting : 9600/n/8/1
   Passthru Mode : None
   Welcome msg line1 : *** VFD DISPLAY ***
   Welcome msg line2 : **HAVE A NICE DAY AND THANK YOU**

6. Welcome Msg
   Welcome Msg line1 maximum 20 characters, line 2 maximum 20 characters, total of 40 characters.

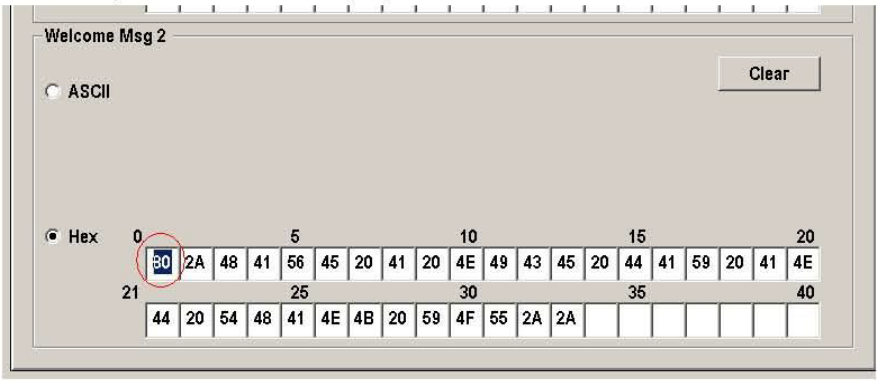
   a. ASCII mode




You can type the character by keyboard (0x20h ~ 0x7Fh), if you press clear icon, it will clear the all Msg characters on AP.

   b. Hex mode
   Hex mode can define the character from 0x20h to0xFFh，the range 0x80~0xFF

which depends on the code page table.




Like the first character (0x80)，in default code page will show Ç on display。

7. “Download setting to VFD” button
   This button is to download the setting from VFD_Setup.exe to display.
   *After success dialog “Download O.K ! Please restart !” message popped up, you must restart display for enable new setting.

8. “Save” button
   To save user’s setting in file, example: below picture to save file name as “Rename-GOODLUCK” file set for Welcome Msg.
   P.S : The default setting named “VFD.vfd” which can’t be made any setting change.

9. “Load’ button
For saving your time, you could load any setting file which you made before to the display. You must restart the display for enable the new settings.

## 6-6 i-Button Reader Configuration Utility

The i-Button Reader Configuration Utility is used to set up the output format of HID MSR

# Installation

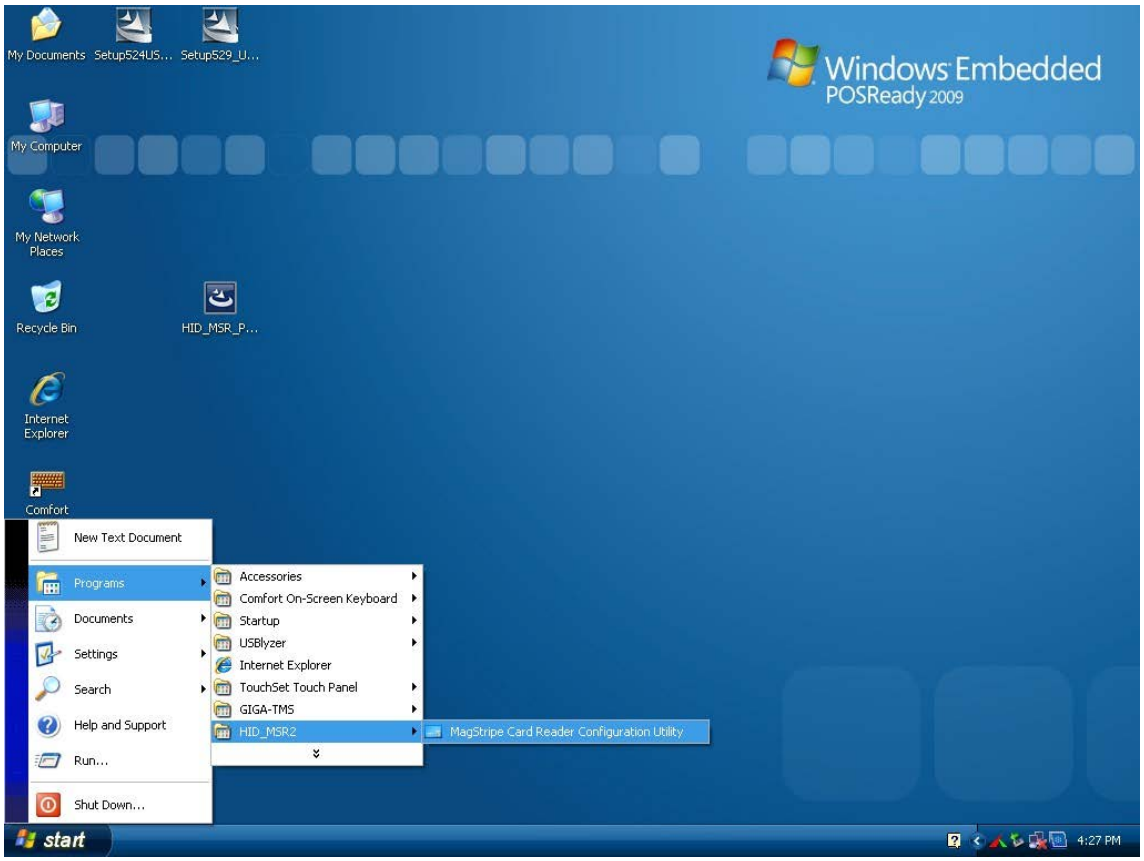
Below steps guide you how to install the Utility program.

- Insert the setup CD
- Run the **HID_MSR_PSW00003_V2_0_0.exe** setup file that is located in the Software folder of CD.
- Follow the wizard to complete the installation.

# Launching Program

Below steps guide you how to load the **Utility** program.

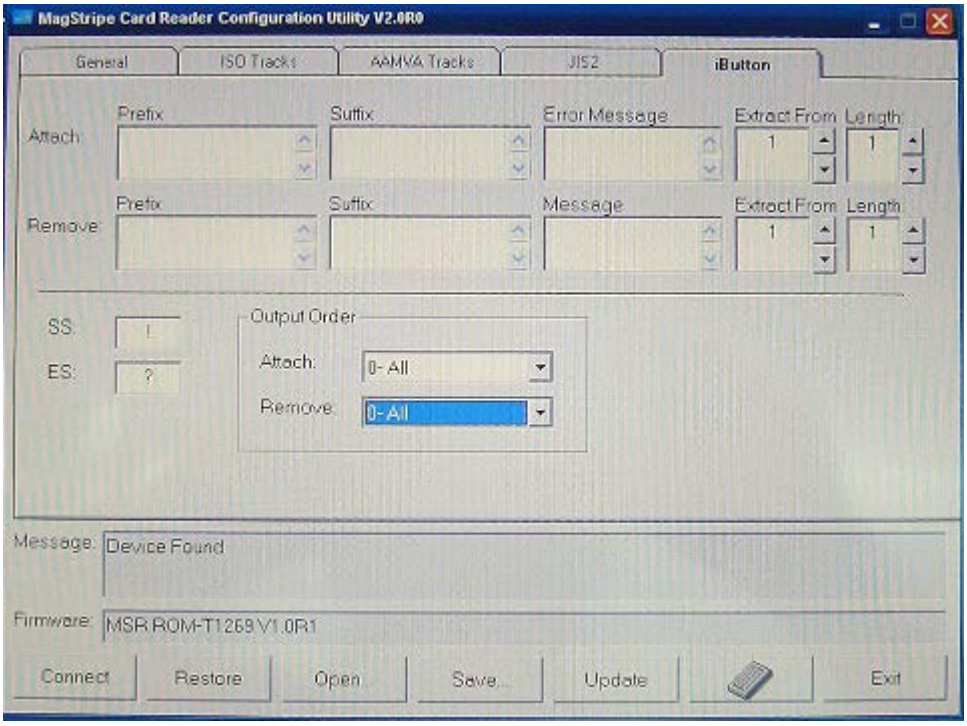
- From **Start/Programs**, click **HID_MSR2** folder
- Click **MagStripe Card Reader Configuration Utility** to launch the program.



- The utility program will detect the connected reader. If detected, all the input text boxes will be enabled.
- If the reader has not been connected to PC yet, please connect the reader and then click **Refresh** to get connected.

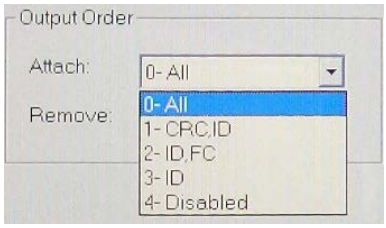
# Configuration

Below is the main window of i-Button **Utility** program.




For the settings, there are:

- **Prefix/Suffix:** Defines the data string which you would like to append in front or end of the i-Button key string.
- **Error Message:** Indicates error message when i-Button key read fail.
- **Message:** Indicates message when i-Button key read correctly
- **SS/ES :** Define Start and End sentinel byte for the i-Button ID string
- **Length :** i-Button ID length request from 0~16
- **Output order :** 4 format could be select at Attach /Remove i-Button ID




# Update Settings

Once complete the settings, click **Update** to update the settings to connected HID MSR reader.

# Save Settings

To save the settings to a file, click **Save**; specify the file name and location to be saved.

# Open Settings

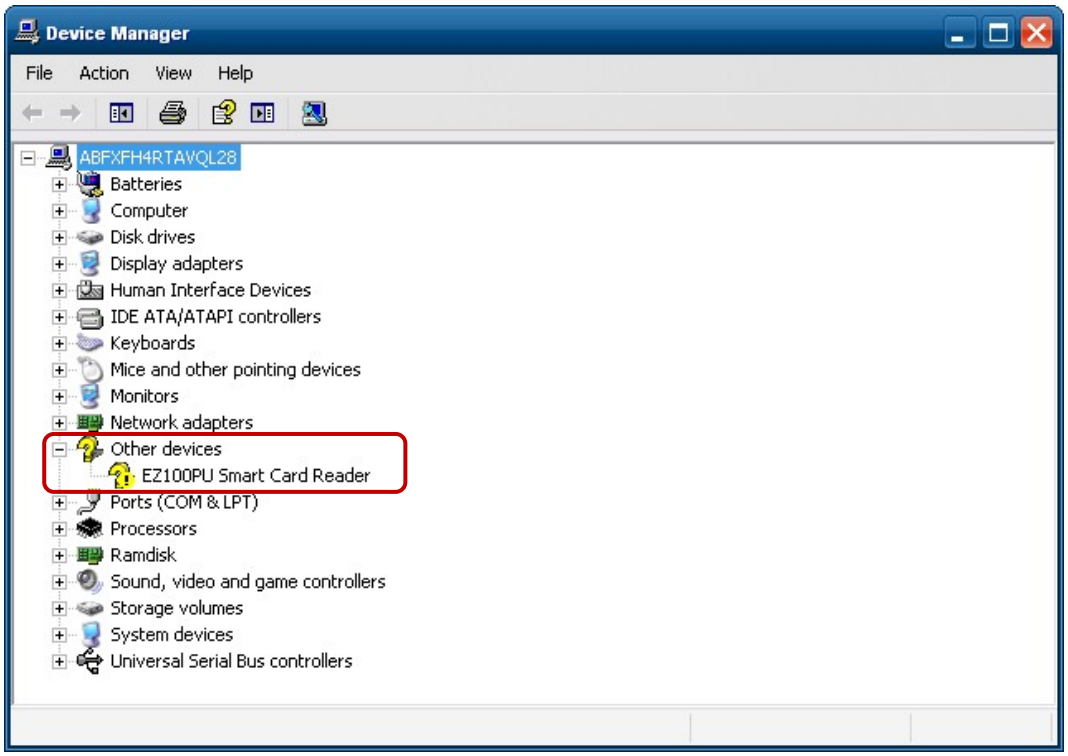
To load pre-saved settings, click **Open**, specify the settings file, and then click OK to load into program.

# Restore MSR Reader Settings

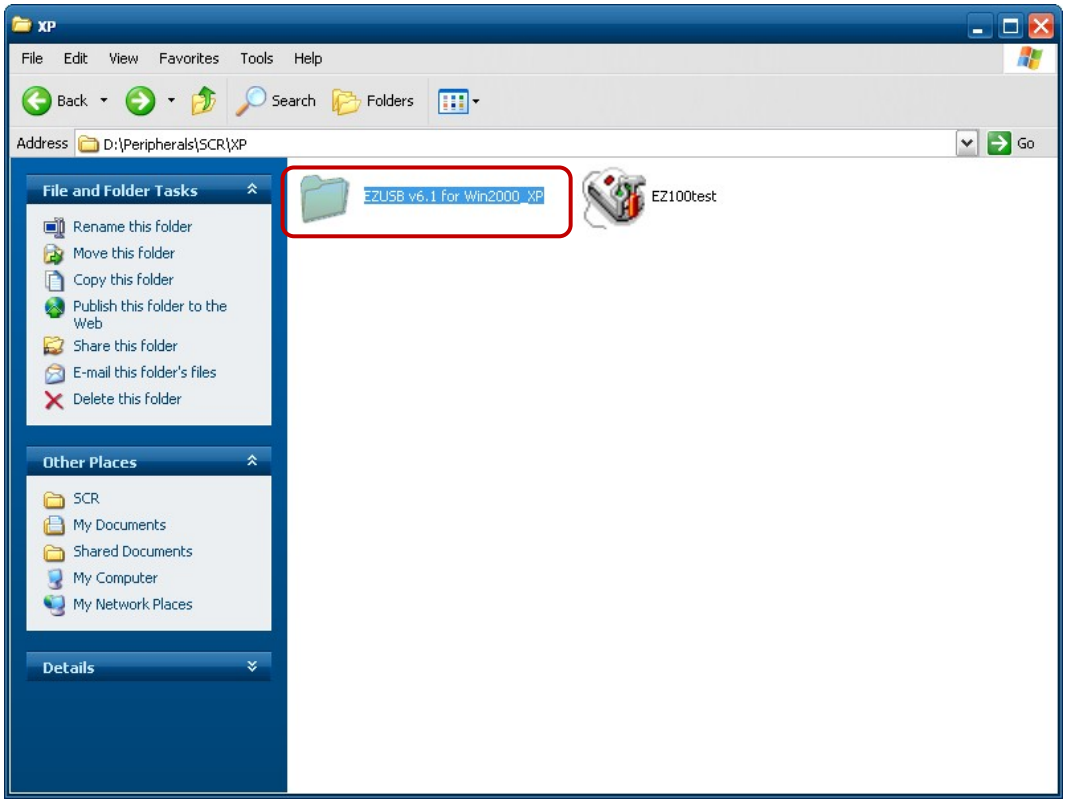
To load restore settings of connected MSR reader, click **Restore ES2:** End sentinel for track.

## 6-7 Installation and Testing of Smart Card Reader

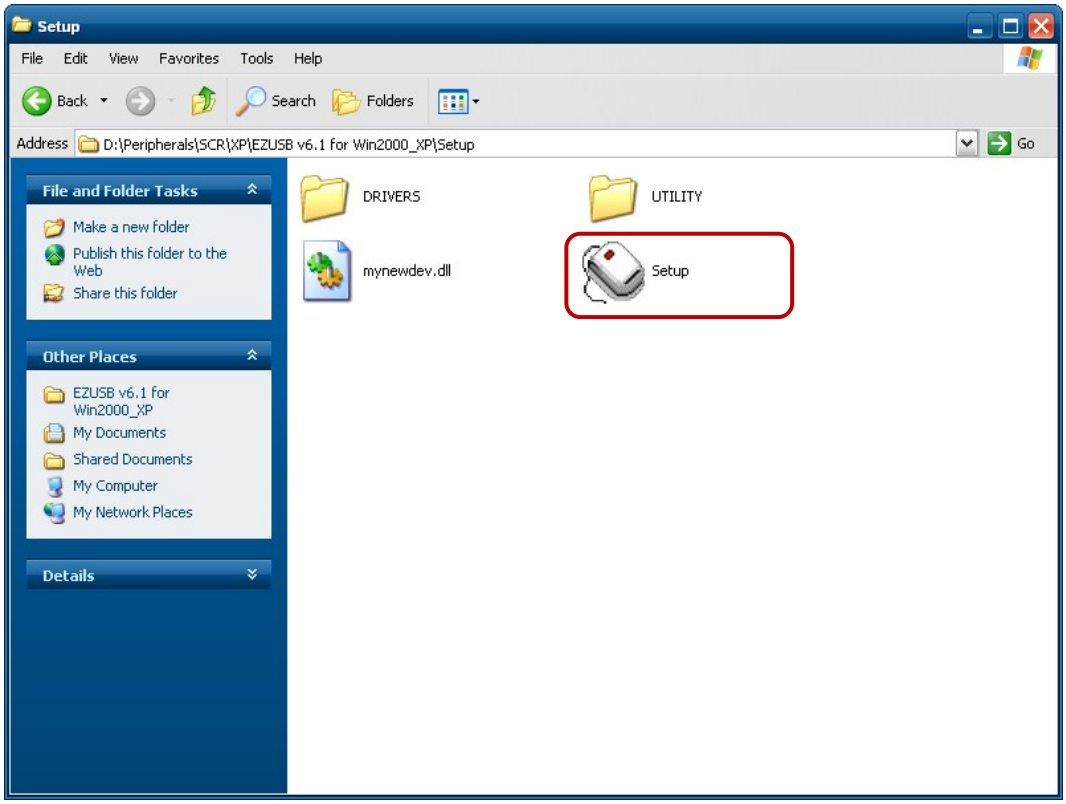
1. Check smart card reader be detected by “Device manager”.



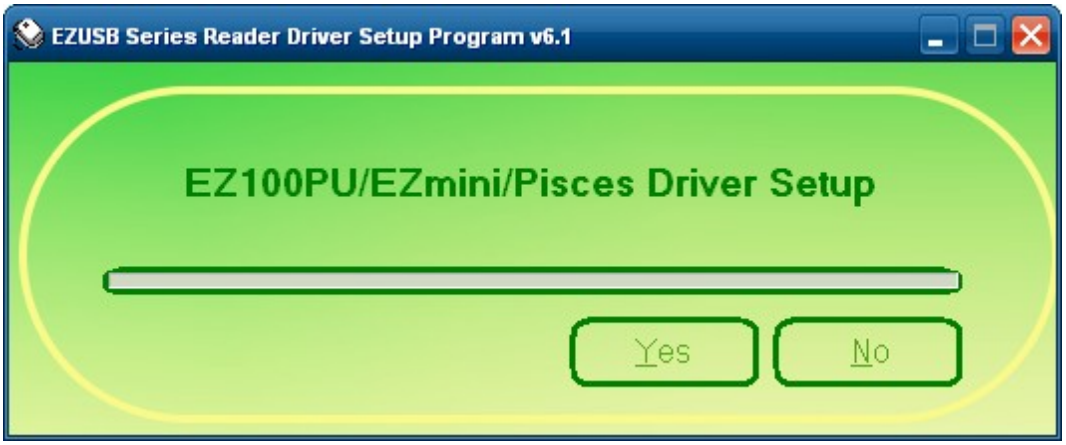

2. Install the SCR driver.

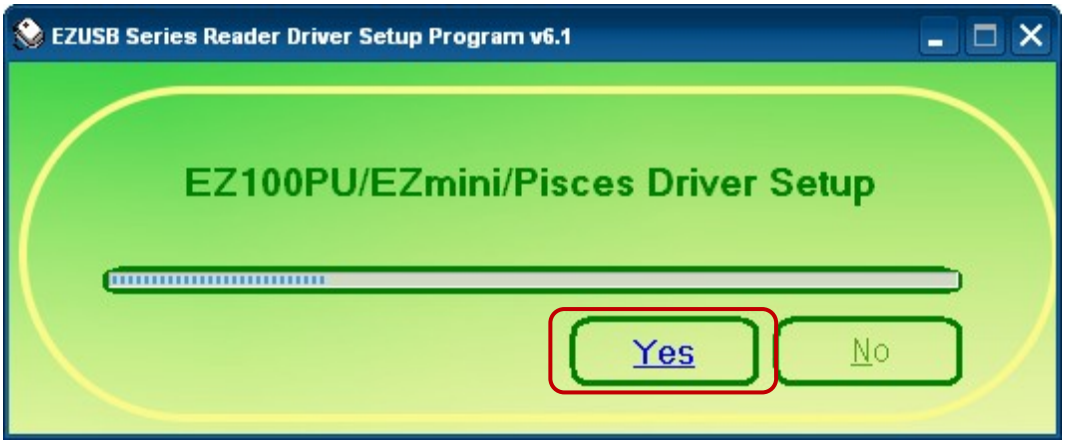


3. Run Setup.exe.

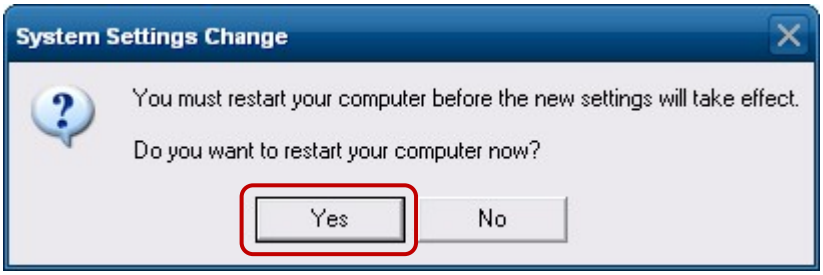



4. Click "**Yes**".

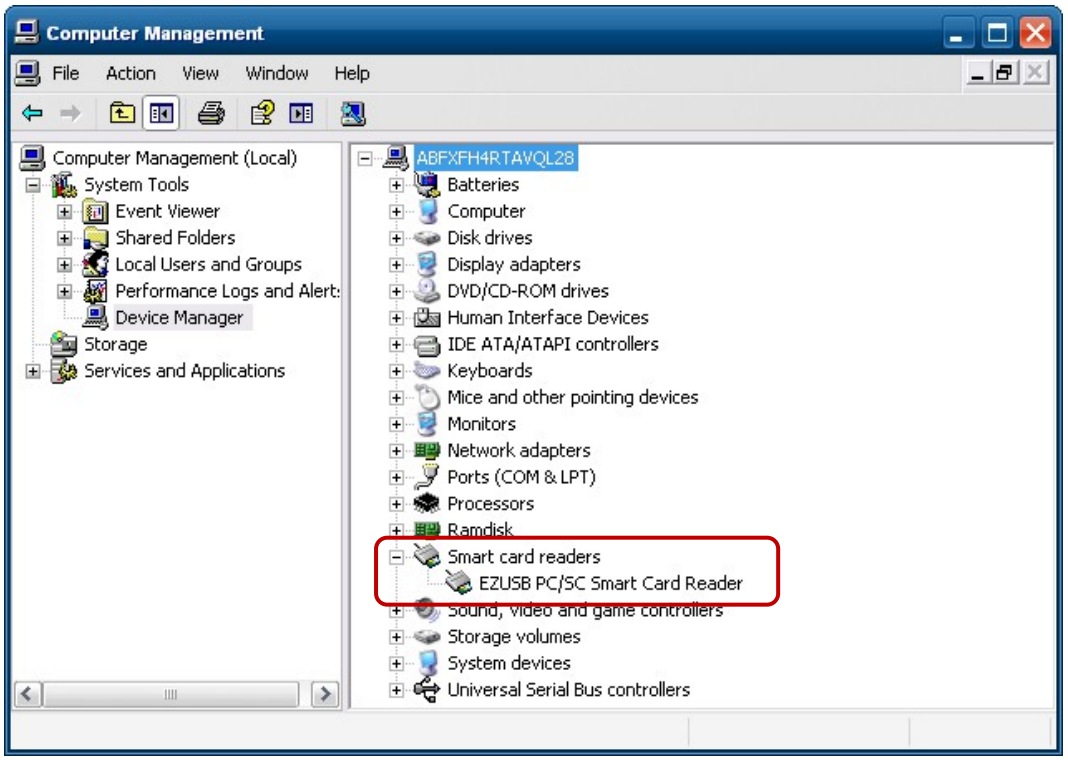




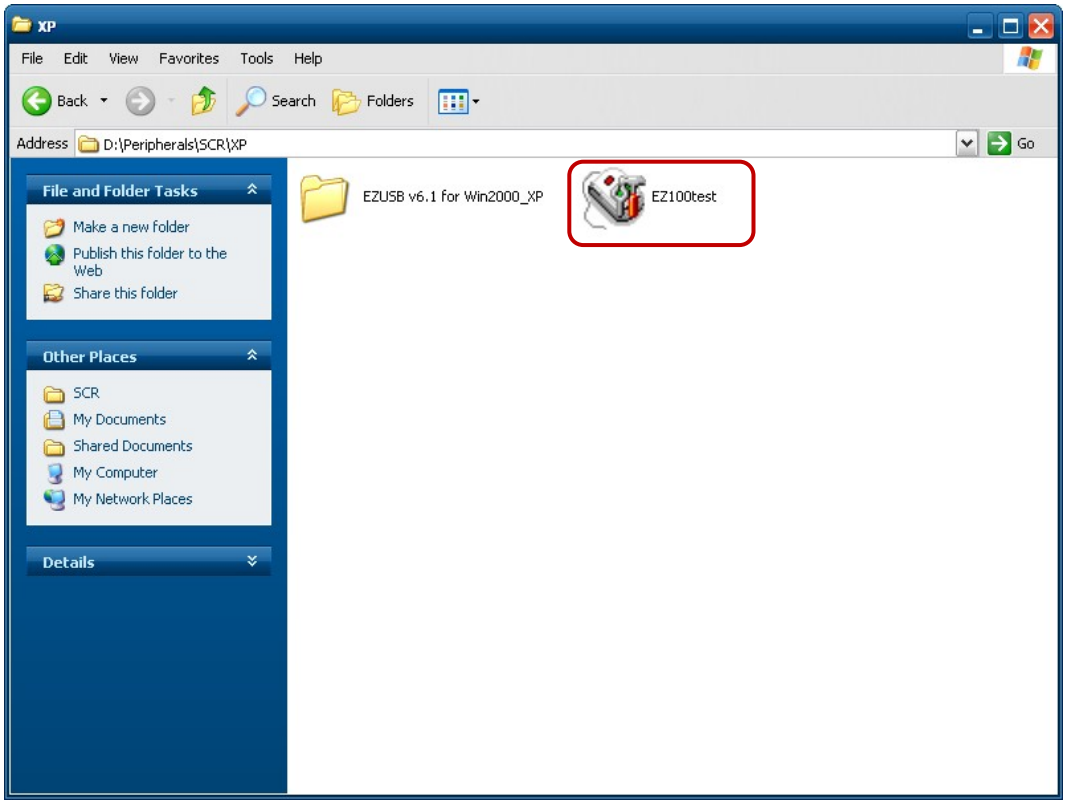

5. Restart systems.


System Settings Change
You must restart your computer before the new settings will take effect.
Do you want to restart your computer now?
Yes
No

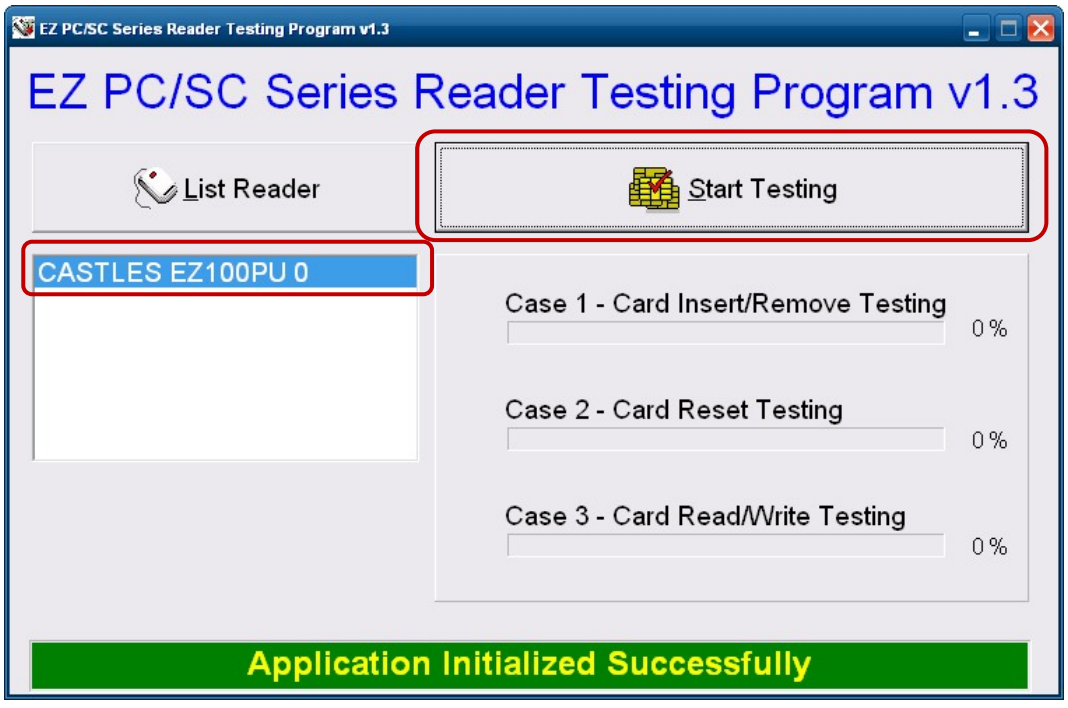
6. Check SCR reader in Device Manager.



7. Run the testing program – EZ100test.

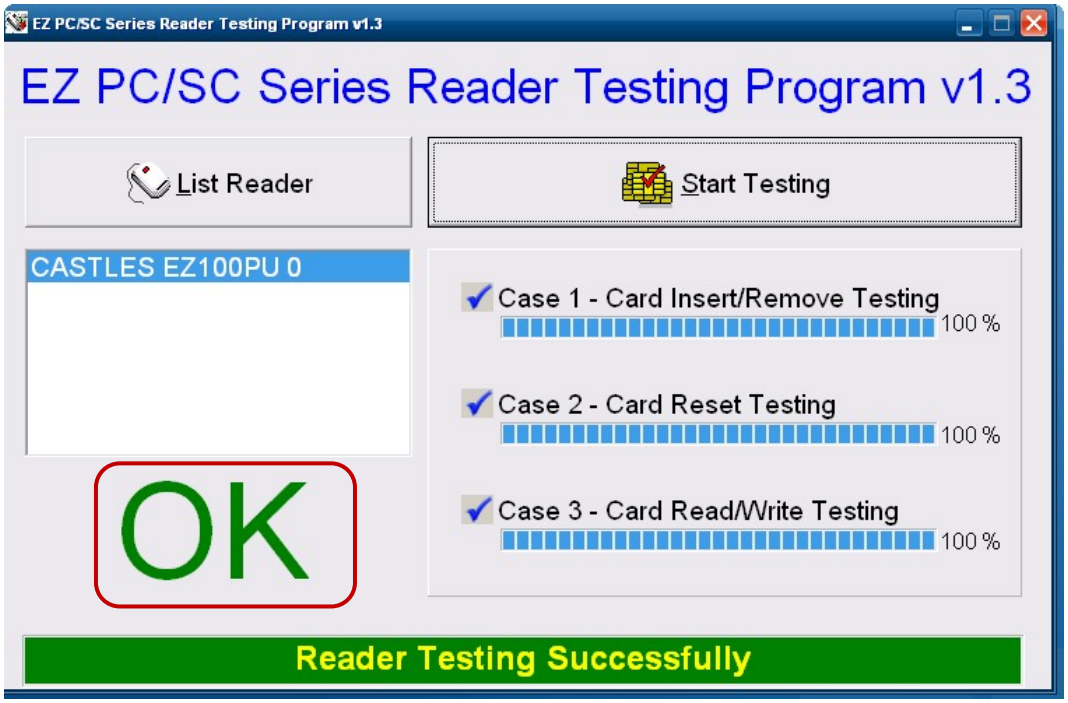



8. Conferm that SCR can be detected by the testing program, then run the program - the Start Testing.


EZ PC/SC Series Reader Testing Program v1.3
EZ PC/SC Series Reader Testing Program v1.3
List Reader
Start Testing
CASTLES EZ100PU 0
Case 1 - Card Insert/Remove Testing
0 %
Case 2 - Card Reset Testing
0 %
Case 3 - Card Read/Write Testing
0 %
Application Initialized Successfully

9. Follow dialog boxes displayed to remove and insert card.

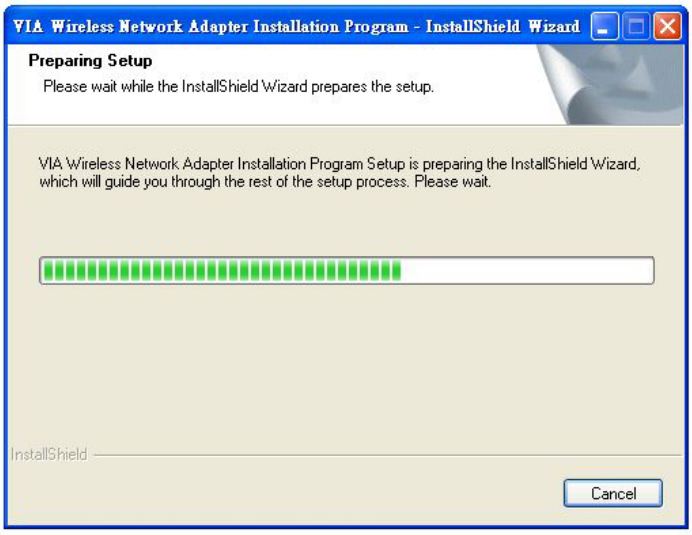
10. After finishing the testing, the dialog box will show "**oK**".



## 6-8 WiFi

1. Install the WiFi driver.

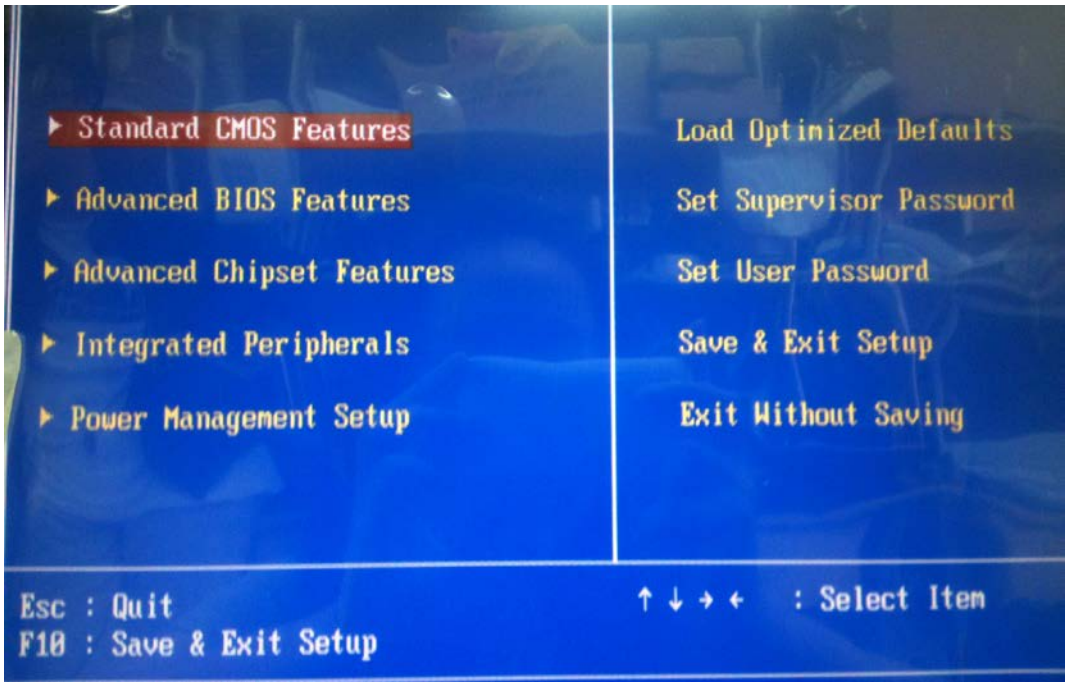
2. Run Setup.exe.


VIA Wireless Network Adapter Installation Program - InstallShield Wizard
Preparing Setup
Please wait while the InstallShield Wizard prepares the setup.
VIA Wireless Network Adapter Installation Program Setup is preparing the InstallShield Wizard, which will guide you through the rest of the setup process. Please wait.
InstallShield
Cancel

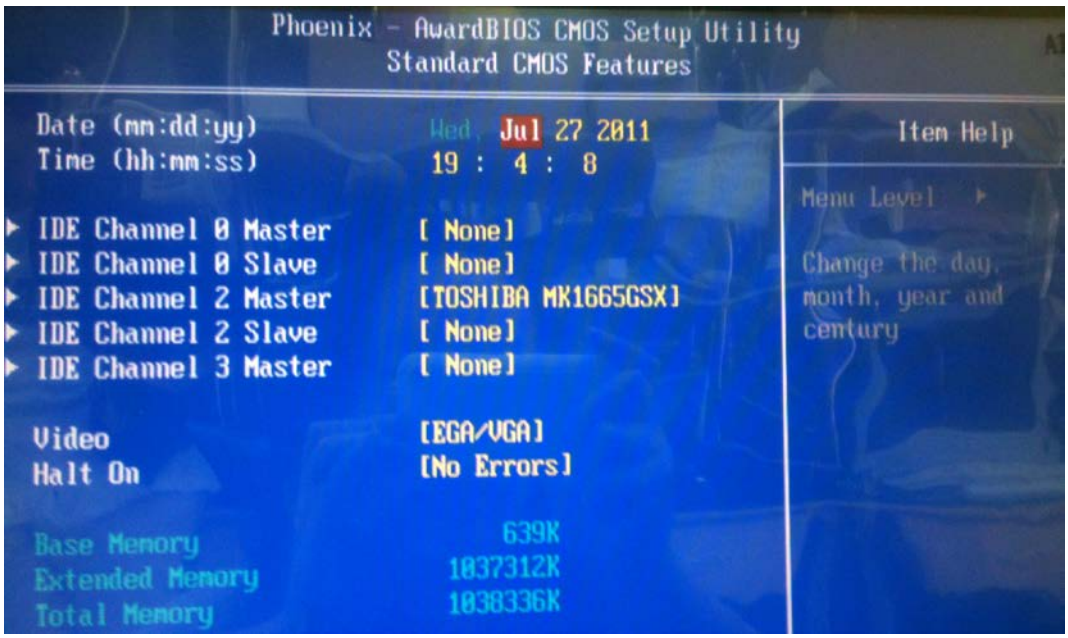
# 7 BIOS/Utility setup

Press <DEL > / <F2> key to enter BIOS SETUP UTILITY when system boot up.

☆ **Please press <DEL > / <F2> key tenderly and slowly.**




***Standard CMOS Features***


Phoenix - AwardBIOS CMOS Setup Utility
Standard CMOS Features
Date (mm:dd:yy) Wed, Jul 27 2011
Time (hh:mm:ss) 19 : 4 : 8
IDE Channel 0 Master [ None]
IDE Channel 0 Slave [ None]
IDE Channel 2 Master [TOSHIBA MK1665GSX]
IDE Channel 2 Slave [ None]
IDE Channel 3 Master [ None]
Video [EGA/VGA]
Halt On [No Errors]
Base Memory 639K
Extended Memory 1037312K
Total Memory 1038336K
Item Help
Menu Level ▸
Change the day, month, year and century

**Date and Time**

The Date and Time items show the current date and time on the computer. If you are running a Windows OS, these items are automatically updated whenever you make changes to the Windows Date and Time Properties utility.

**IDE Devices**

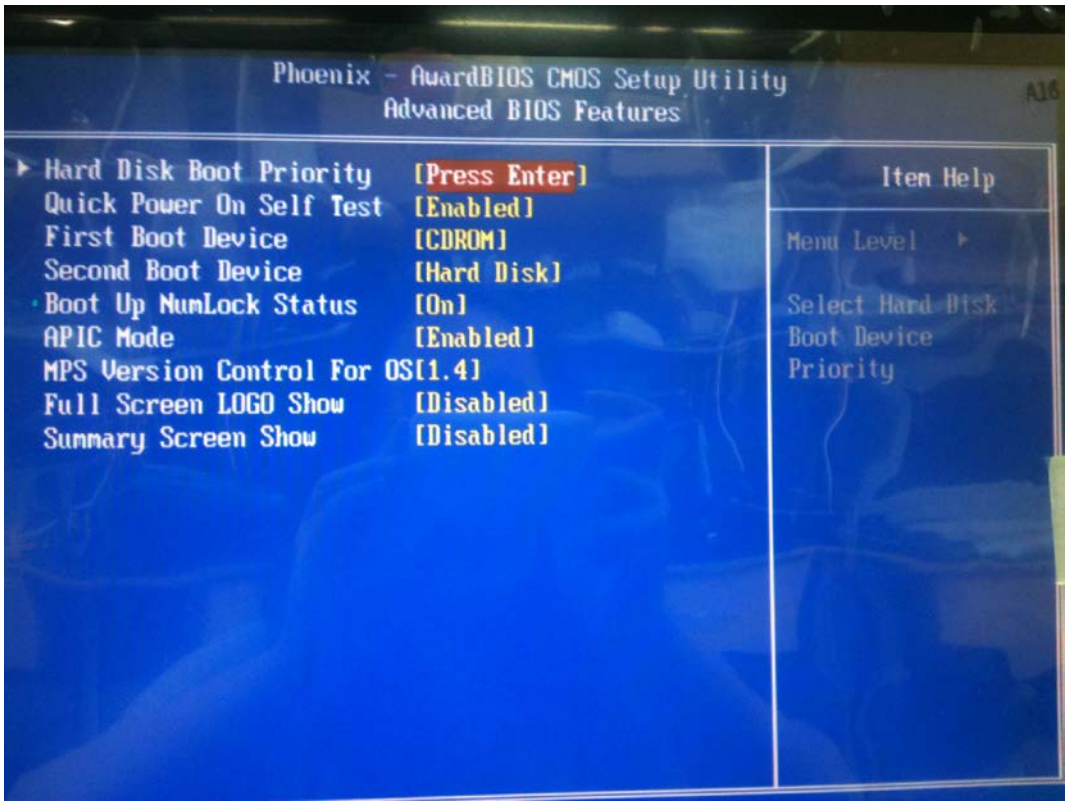
Press <Enter> to display the IDE submenu:

| | | |
|---|---|---|
| IDE HDD Auto-Detection | [ Press Enter] | Item Help |
| IDE Channel 1 Master | [Auto] | |
| Access Mode | [Auto] | |
| Capacity | 0 MB | Menu Level ▶▶ |
| Cylinder | 0 | To auto-detect the HDD's size, head...on this channel |
| Head | 0 | |
| Precomp | 0 | |
| Landing Zone | 0 | |
| Sector | 0 | |

***IDE HDD Auto-Detection***

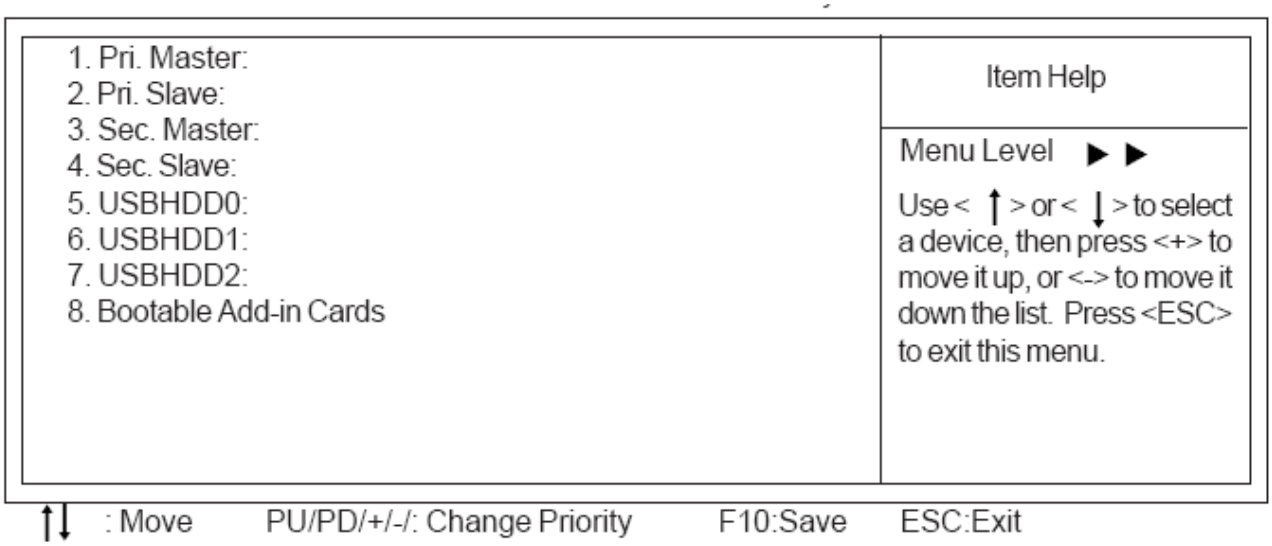
Press <Enter> while this item is highlighted to prompt the Setup Utility to automatically detect and configure an IDE device on the IDE channel.

***Advanced BIOS Features***


Phoenix - AwardBIOS CMOS Setup Utility
Advanced BIOS Features
Hard Disk Boot Priority [Press Enter]
Quick Power On Self Test [Enabled]
First Boot Device [CDROM]
Second Boot Device [Hard Disk]
Boot Up NumLock Status [On]
APIC Mode [Enabled]
MPS Version Control For OS[1.4]
Full Screen LOGO Show [Disabled]
Summary Screen Show [Disabled]
Iten Help
Menu Level
Select Hard Disk Boot Device Priority

**Hard Disk Boot Priority (Press Enter)**

Scroll to this item and press <Enter> to view the following screen:


1. Pri. Master:
2. Pri. Slave:
3. Sec. Master:
4. Sec. Slave:
5. USBHDD0:
6. USBHDD1:
7. USBHDD2:
8. Bootable Add-in Cards
Item Help
Menu Level ▶ ▶
Use < ↑ > or < ↓ > to select a device, then press <+> to move it up, or <-> to move it down the list. Press <ESC> to exit this menu.
↑↓ : Move
PU/PD/+/-/: Change Priority
F10:Save
ESC:Exit

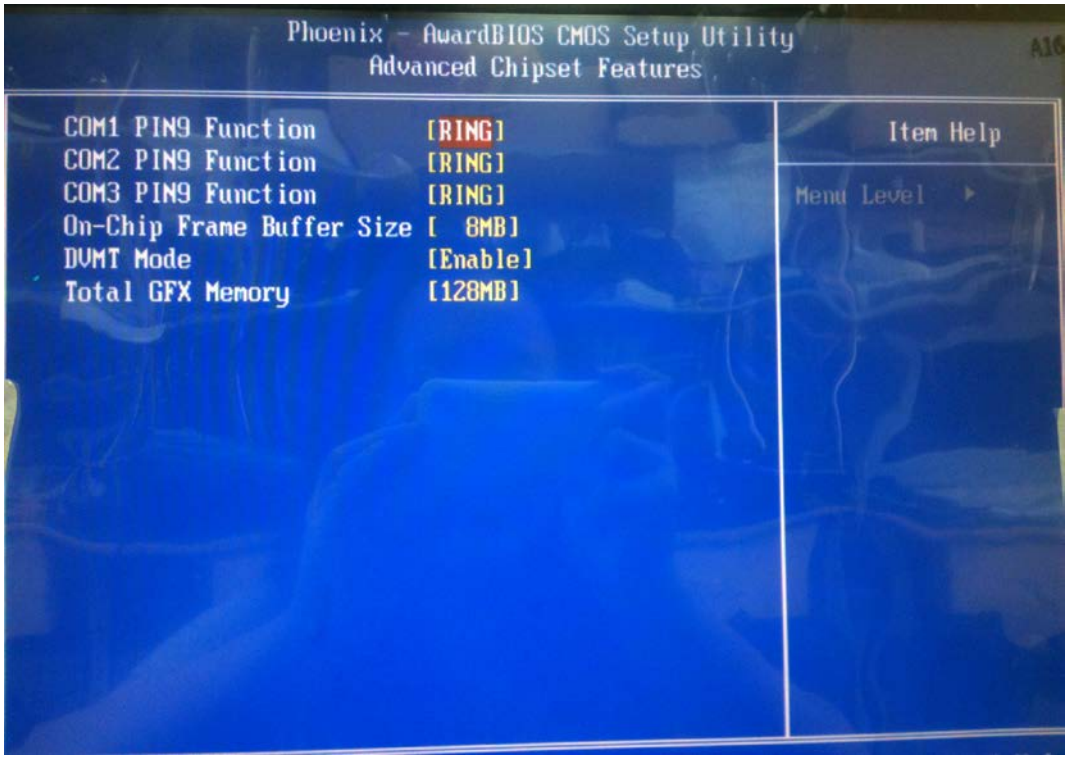
**First/Second Boot Device (Floppy/Hard Disk/CDROM)**

Use these three items to select the priority and order of the devices that your system searches for an operating system at start-up time.

***Advanced Chipset Features***

**COM port PIN9 setting**

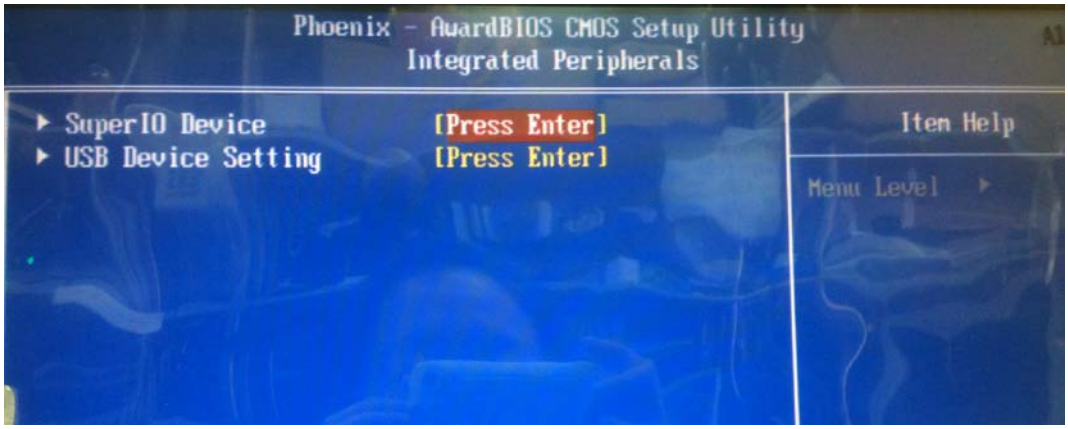
Select "COM1/2/3 PIN9 Function" and press <Enter> to setup COM 1/2/3 PIN9 function.



| ITEM | Option | Descriptions |
|---|---|---|
| COM1 PIN9 Function | RING (Default) | COM1/2/3 Pin9 select RING function |
| COM2 PIN9 Function | 5V | COM1/2/3 Pin9 select 5V function |
| COM3 PIN9 Function | 12V | COM1/2/3 Pin9 select 12v function |

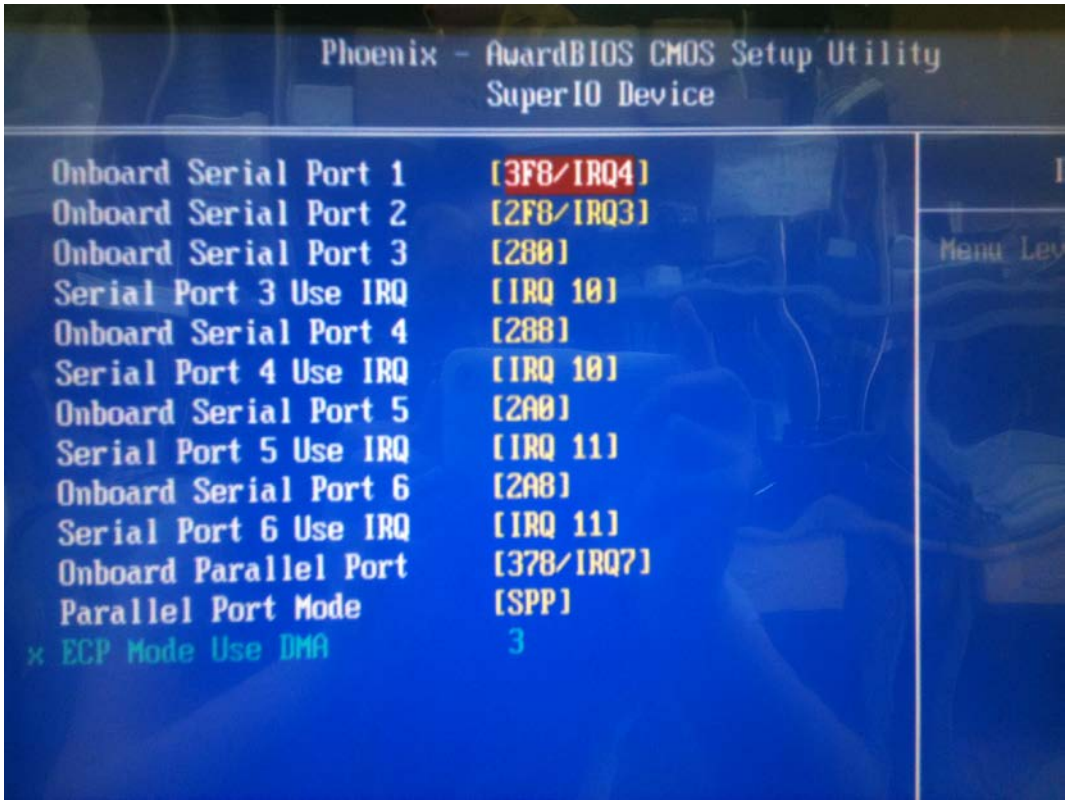
***Integrated Peripherals***

These options display items that define the operation of peripheral components on the system's input/output ports.

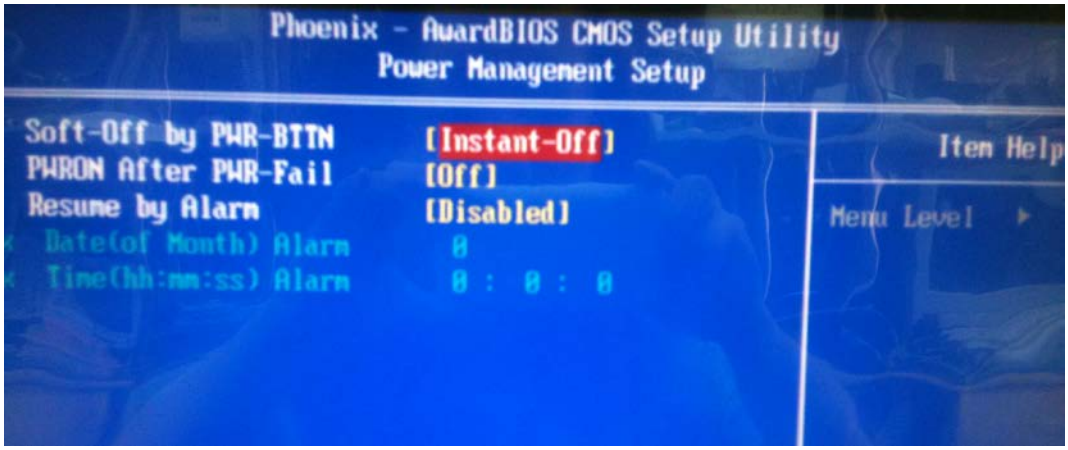



**SuperIO Device (Press Enter)**

Scroll to this item and press <Enter> to view the following screen:


Phoenix - AwardBIOS CMOS Setup Utility
SuperIO Device
Onboard Serial Port 1 [3F8/IRQ4]
Onboard Serial Port 2 [2F8/IRQ3]
Onboard Serial Port 3 [280]
Serial Port 3 Use IRQ [IRQ 10]
Onboard Serial Port 4 [288]
Serial Port 4 Use IRQ [IRQ 10]
Onboard Serial Port 5 [2A0]
Serial Port 5 Use IRQ [IRQ 11]
Onboard Serial Port 6 [2A8]
Serial Port 6 Use IRQ [IRQ 11]
Onboard Parallel Port [378/IRQ7]
Parallel Port Mode [SPP]
x ECP Mode Use DMA 3

***Power Management Setup***


Phoenix - AwardBIOS CMOS Setup Utility
Power Management Setup
Soft-Off by PWR-BTTN [Instant-Off]
PWRON After PWR-Fail [Off]
Resume by Alarm [Disabled]
Date(of Month) Alarm 0
Time(hh:mm:ss) Alarm 0 : 0 : 0
Item Help
Menu Level

**Soft-Off by PWR-BTTN (Instant-Off)**

Under ACPI (Advanced Configuration and Power management Interface) you can create a software power down. In a software power down, the system can be resumed by Wake Up Alarms. This item lets you install a software power down that is controlled by the power button on your system. If the item is set to Instant-Off, then the power button causes a software power down. If the item is set to Delay 4 Sec. then you have to hold the power button down for four seconds to cause a software power down.

**Power On After Power Fail (Off)**

This item enables your computer to automatically status after power returns from a power failure.

**Resume by Alarm (Disabled)**

When set to Enabled, additional fields become available and you can set the date (day of the month), hour, minute and second to turn on your system. When set to 0 (zero) for the day of the month, the alarm will power on your system every day at the specified time.

***Load Fail-Safe Defaults Option***

This option opens a dialog box that lets you install fail-safe defaults for all appropriate items in the Setup Utility:

Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The fail-safe defaults place no great demands on the system and are generally stable. If your system is not functioning correctly, try installing the fail-safe defaults as a first step in getting your system working properly again. If you only want to install fail-safe defaults for a specific option, select and display that option, and then press<F6>.

***Load Optimized Defaults Option***

This option opens a dialog box that lets you install optimized defaults for all appropriate items in the Setup Utility. Press <Y> and then <Enter> to install the defaults. Press <N> and then <Enter> to not install the defaults. The optimized defaults place demands on the system that may be greater than the performance level of the components, such as the CPU and the memory. You can cause fatal errors or instability if you install the optimized defaults when your hardware does not support them. If you only want to install setup defaults for a specific option, select and display that option, and then press <F7>.

***Set Supervisor/User Password***

When this function is selected, the following message appears at the center of the screen to assist you in creating a password.

**ENTER PASSWORD**

Type the password, up to eight characters, and press <Enter>. The password typed now will clear any previously entered password from CMOS memory. You will be asked to confirm the password. Type the password again and press <Enter>. You may also press <Esc> to abort the selection. To disable password, just press <Enter> when you are prompted to enter password. A message will confirm the password being disabled. Once the password is disabled, the system will boot and you can enter BIOS Setup freely.

**PASSWORD DISABLED**

If you have selected “System” in “Security Option” of “BIOS Features Setup” menu, you will be prompted for the password every time the system reboots or any time you try to enter BIOS Setup. If you have selected “Setup” at “Security Option” from “BIOS Features Setup” menu, you will be prompted for the password only when you enter BIOS Setup. Supervisor Password has higher priority than User Password. You can use Supervisor Password when booting the system or entering BIOS Setup to modify all settings. Also you can use User Password when booting the system or entering BIOS Setup but can not modify any setting if Supervisor Password is enabled.

***Save & Exit Setup Option***

Highlight this item and press <Enter> to save the changes that you have made in the Setup Utility and exit the Setup Utility. When the Save and Exit dialog box appears, press <Y> to save and exit, or press <N> to return to the main menu:

***Exit Without Saving***

Highlight this item and press <Enter> to discard any changes that you have made in the Setup

Utility and exit the Setup Utility. When the Exit Without Saving dialog box appears, press <Y> to discard changes and exit, or press <N> to return to the main menu.

# 8 LCD Surface Cleaning

1. **How to clean the LCD surface properly?**
   - ☆ Do not spray any liquids on the LCD screen directly, and do not use paper towels, this can cause the LCD screen to become scratched.
   - ☆ Always apply the solution to your cloth first, not directly to the parts you are cleaning. You want to avoid dripping the solution directly into your computer or laptop.
   - ☆ Stroke the cloth across the display in one direction, moving from the top of the display to the bottom.

2. **What are some of the basic supplies needed to clean an LCD screen?**
   - ☆ A soft cotton cloth. When cleaning the LCD screen it is important to use a soft cotton cloth, rather than an old rag. Some materials, such as paper towels, could cause scratches and damage the LCD screen.
   - ☆ Solution of water and isopropyl alcohol. This solution can be used along with the soft cotton cloth.
   - ☆ Computer wipes. Only use these if they specifically state on the package they are designed for LCD laptop screens. Computer wipes can come in handy for fast clean-ups or when you want to avoid mixing up a cleaning solution yourself.

3. **What types of cleaners are acceptable?**
   - ☆ Water
   - ☆ Vinegar (mixed with water)
   - ☆ Isopropyl Alcohol

   **NOTICE: The following cleaners are unacceptable:**

   - ☆ Acetone
   - ☆ Ethyl alcohol
   - ☆ Ethyl acid
   - ☆ Ammonia
   - ☆ Methyl chloride

**CE Notice**

This device complies with the requirements of the CE directive.

**FCC Notice**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

Shielded interface cables must be used in order to comply with emission limits.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**WEEE Notice**

This appliance is labeled in accordance with European Directive 2002/96/EC concerning waste electrical and electronic equipment (WEEE). The Directive determines the framework for the return and recycling of used appliances as applicable throughout the European Union. This label is applied to various products to indicate that the product is not to be thrown away, but rather reclaimed upon end of life per this Directive.